PROPERTY OF THE LIBRARY OF
MAY 19 1954

ARCHITECTURAL

RECORD

MAY 1954

HOUSES

BUILDING TYPES STUDY NUMBER 210

SUBURBAN BRANCH DEPARTMENT STORES

Floors that aid

- production
- economy
- safety

MASTERPLATE "Iron-Clad" Concrete Floors... wear 4-6 times longer

Westinghouse Electric Corp. Plant, Buffalo, N. Y. Architect—Private Plans. Company Chief Engineer—L. G. Mackling, Pittsburgh, Pa.; Contractor—The John W. Cowper Company, Inc., Buffalo, N. Y.

After six years of hard service, the floors shown here are in excellent condition. This is typical of the experience of plants the country over where Masterplate floors are helping to maintain a smooth flow of production, reduce maintenance expense and improve safety.

Only with Masterplate can you obtain a Masterplate "Iron-Clad" concrete floor with its important advantages*...4-6 times more wear-resistant than the best plain concrete floor, spark-safe, non-dusting, corrosion-resistant, easy-to-clean and non-slip.

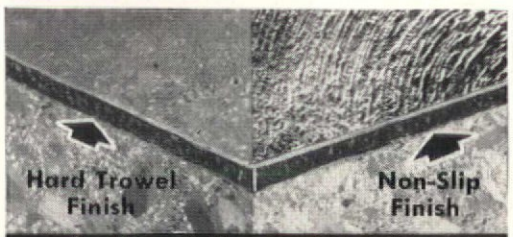
*Write for the Masterplate "see-for-yourself" demonstration kit and you'll find out why. No obligation, of course.

• • •

Whether your equipment is large machine tools, hydraulic presses, generators, engines, rolling mills, pulverizers, forging machines, mold shake-outs or other equipment subjected to impact, pounding action, or vibration, Embeco will produce a grout that gives long and satisfactory service.

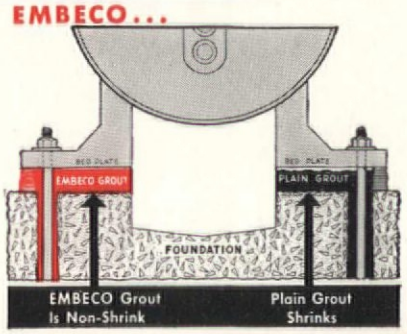
Embeco counteracts shrinkage and provides ductility, thereby overcoming the two principal causes of failure in equipment grouts—also produces easy placeability...sets in 6-12 hours—gives 7-day strength in 24 hours; 50% greater ultimate strength...insures full, level bedplate contact...maintains alignment. *Full information on request.*

MASTERPLATE...



Section of Masterplate Floor. Note Thickness of Armored Surface

EMBECO...



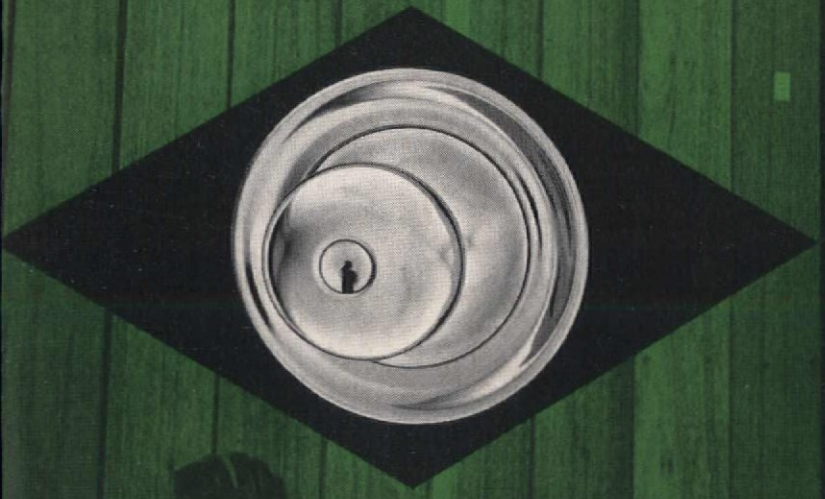
the MASTER BUILDERS Co

CLEVELAND 3, OHIO - TORONTO, ONT. Subsidiary of American-Marietta Company Cable Address, Mastmethod, New York

FINE HOMES BEGIN AT THE DOORWAY

Specify the new KWIKSET "600" line and select from a distinctively styled line of fine, precision-manufactured, *unconditionally guaranteed* locksets.

Available in all popular functions and finishes, for finer residential and commercial building.



A finer lock for finer homes

kwikset LOCKSETS 600" LINE

kwikset
sales and service company
Anaheim, California

ALL THE FEATURES *plus*....

SQUARE D's
NEW
POWER-STYLE

SWITCH BOARDS

DESIGN LEADERSHIP FEATURES

Distinctive Styling provides an attractive, modern appearance matching the control center design.

Easier Installation because removable front and back plates expose generous wiring parts. Isolated horizontal wiring trough has drop-off openings, assuring safer, neater wiring.

Flexibility. Complete sections or branch units can be added or changed to meet specific job requirements.

Easier Inspection and Maintenance. Front, side and back plates are removable, thus providing easy and immediate access to specific areas.

SEPARATELY OR AS A TEAM....

Write for Bulletin SD-18. Address Square D Company, 6060 Rivard Street, Detroit 11, Michigan.

SQUARE D COMPANY

MATCHED ENCLOSURES!

SQUARE D's
NEW
PLUG-IN

CONTROL CENTERS

DESIGN LEADERSHIP FEATURES

Increased Safety because bus bars are fully enclosed, rigidly supported and have ample cross section...circuits isolated by individually enclosed plug-in units...disconnect handle designed for maximum operator protection.

Flexibility. Individual plug-in units or complete sections can easily be added, removed or exchanged. Push-buttons, pilot lights, and selector switches can readily be added to unit doors.

Installation Economy. All wiring channels are large and accessible from front without removing units...no "wire fishing."

Space economy, too. Up to six combination starters fit in a 20"x20"x 90" section. Plug-in unit heights are designed in space-saving increments of 3 inches.

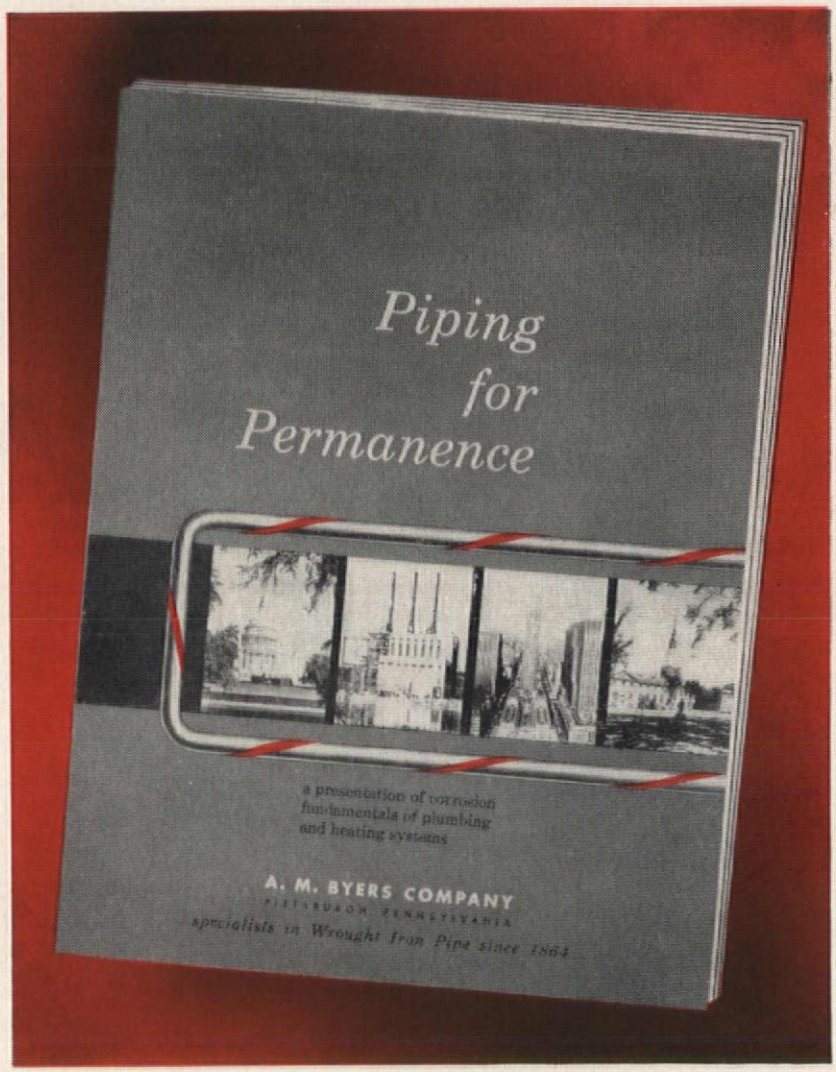
....THEY DO THE JOB BETTER!

Write for Bulletin 244. Address Square D Company, 4041 N. Richards St., Milwaukee 12, Wisconsin.

ASK YOUR ELECTRICAL DISTRIBUTOR FOR SQUARE D PRODUCTS

Your copy is ready

...PIPING FOR PERMANENCE



The nature of piping problems in heating and plumbing systems, and the methods by which they can be solved, are discussed in detail in this 32-page Bulletin.

Prepared by our Engineering Service Department, this Bulletin is based on the information we have gathered from analysing complete data on thousands of piping installations of every type, under all kinds of conditions. This pool of experience has been condensed between covers in a clear, easily followed story to help you realize greater piping economy in your installations.

The bulletin also includes a roundup of wrought iron pipe installations from every part of the country and presents practical evidence of the results obtained from the use of the material. These past service records are providing leading engineers everywhere with a practical guide for today's selection.

Your copy is ready. Write for it today.

A. M. Byers Company, Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Atlanta, Chicago, St. Louis, Houston, San Francisco. Export Dept.: New York, N.Y.

You'll find information on:

Requisites of a piping system—brief review of piping material properties essential to long-life, economical service.

Building-piping systems—definition of individual services; brief discussion of conditions that threaten service life in plumbing and heating systems and solutions; fundamentals of design and installation that may be used to reduce the rate and severity of corrosion.

Water and water problems—background facts on interpretation of water analysis and water treatment.

How Byers can help you—available data on piping installations to solve individual problems; how you can benefit from the records of our Engineering Service Department.

BYERS

CORROSION COSTS YOU MORE THAN WROUGHT IRON

WROUGHT IRON

TUBULAR AND HOT ROLLED PRODUCTS

ELECTRIC FURNACE QUALITY ALLOY AND STAINLESS STEEL PRODUCTS

ARCHITECTURAL RECORD (Vol. 115, No. 5, May, 1954) is published monthly by F. W. Dodge Corp., 10 Ferry Street, Concord, N. H., with editorial and executive offices at 119 W. 40th St., New York 18, N. Y. $5.50 per year; Foreign, $20.00.
(Regular Edition)

Entered as second-class matter at the Post Office, Concord, N. H., March 16, 1946, under the Act of March 3, 1879.

ARCHITECTURAL RECORD

May 1954 Vol. 115 No. 5

Copyright 1954 by F. W. Dodge Corporation, with all rights reserved.

ARCHITECTURAL RECORD (combined with AMERICAN ARCHITECT and ARCHITECTURE) is published monthly by F. W. Dodge Corporation, 10 Ferry Street, Concord, New Hampshire, with editorial and executive offices at 119 West 40th Street, New York 18, New York. Western editorial office, 2877 Shasta Road, Berkeley 8, California.

STAFF OF ARCHITECTURAL RECORD

H. Judd Payne, *Publishing and Editorial Director*; **Robert F. Marshall**, *General Manager*; **Marshall T. Ginn**, *Circulation Manager*. . . . **Joseph B. Mason**, *Executive Editor*; **Emerson Goble**, *Managing Editor*; **Frank G. Lopez, A.I.A.**, *Senior Editor*; **James S. Hornbeck, A.I.A.**, *Senior Associate Editor*; **Elisabeth Kendall Thompson**, *Associate Editor and Western Section Editor (Berkeley, California Office)*; **Robert E. Fischer** (*Engineering*), **Florence A. van Wyck, Herbert L. Smith, Jr., A.I.A., Jeanne M. Davern** (*News*), **Daniel M. Kelley** (*Engineering Assistant*): *Associate Editors*; **Ernest Mickel, Dan Street** (*Washington*), **John Caulfield Smith, M.R.A.I.C.** (*Canada*): *Contributing Editors*; **Marjorie Blake, Grace M. Anderson**: *Editorial Assistants*; **Peter Piening**, *Consulting Design Director*; **Eugene H. Hawley, Alfred Petersen**, *Design*; **Sigman-Ward**, *Drafting Consultants*; **Thomas S. Holden**, *Industry Relations Consultant*; **Clyde Shute**, *Statistical Consultant*; **George Cline Smith**, *Economics Consultant*; **Clifford Dunnells, Jr.**, *Field Research Consultant*; **Samuel C. Pace**, *Public Relations Consultant*.

TABLE OF CONTENTS

The Record Reports

Perspectives 9

Auguste Perret: 1874–1954 10

A Washington Report. *By Ernest Mickel* 12

News from Canada. *By John Caulfield Smith* 26

Construction Cost Index 42

Required Reading 46

Current Trends in Construction 352

House Design: Stressing "Delight"

Of the famous triad of "commodity, firmness and delight" the last item takes the center of the stage in house design. It has perhaps been the least popular of the trio because of some villainous acts committed in its name in the past. But it nevertheless manages to capture the client audience, and is in the spotlight here.

COVER: House for Mr. and Mrs. James Parton, Dorset, Vt. Carl Koch and Associates, Architects; Photo © Ezra Stoller

Developing the "Delight" of a Vermont Site: House for Mr. and Mrs. James Parton, Dorset, Vt.; Carl Koch and Assoc., Architects 140

Designed for Both Foreground and Background: Residence for Mr. and Mrs. John Woerner, Kentwoodlands, Calif.; John Funk, Architect 144

An Innovation in Open Planning: Residence for Mr. and Mrs. John C. Telander, Hinsdale, Ill.; George Fred Keck, William Keck, Architects 150

House Designed to Warm the Winter Scene: Residence for Mr. and Mrs. Fred Maduro, Great Neck, L. I.; Edward D. Stone, Architect; Karl J. Holzinger, Jr., Associate Architect 154

Contemporary House in Colonial Setting: Residence for Mrs. Edward Pearson, Mamaroneck, N. Y.; Richard Gordon, Architect 158

Architectural Interiors

To divide or not divide the room, is frequently compromised with a semi-divider of some sort, some device calculated to provide merely a psychological division. Here is a group of a dozen or so ideas architects have used with good effectiveness

Space Definition Within The House 164

Full Circle or Decentralization?

Somebody is doing something about the dissatisfaction with our large cities. It goes without saying that the operation must be on a huge scale. Also that rebuilding our cities is a task architects have itched to accomplish. Many cities

Continued on next page

Continued from page 5

Full Circle or Decentralization? *(Continued)*

are making "big plans," of which a few are quickly shown here, just to start some more thinking.

Chicago: $400 Million Project for 151-Acre Site; Fort Dearborn Project Would Rejuvenate Area Just North of the Loop 170

Washington: $500 Million Project for 427-Acre Site; Zeckendorf Sees Southwest Area as Social and Cultural Heart of Nation 172

London — South Bank: Esthetics is Respectable; Development Joins Commerce and Culture for Public Enjoyment 174

Philadelphia's Penn Center Gets Under Way; $100 million Project in Rockefeller Center Tradition 176

New York: Coliseum Plans in "Final" Version; Project Now Includes Offices as Well as Housing and Parking 177

Building Types Study Number 210 — Suburban Branch Department Stores

The suburbs are acquiring new retailing facilities, urban in character, semi-rural in location, with few of the disadvantages of either. An appraisal prepared in collaboration with Daniel Schwartzman, A.I.A. 178

Introduction 179

Size, Capacity, Costs 182

Location, Site 183

Entrances, Show Windows, Facades 185

Circulation, Vertical Transportation 191

Lighting 193

Fixture Design 193

Character and Design Quality 194

Architectural Engineering

Parking Garage Designed for Fast, Low-Cost Construction: Dallas, Tex.; Jacob E. Anderson, Architect, John A. Murlin, Structural Engineer 198

Basic Elements in the Planning of Electrical Systems. Article 3: Stores With Emphasis on Shopping Centers. *By Felix B. Graham* 201

Porcelain Panels and Lightweight Curtain Walls Ease Building Load: Texas Co., Office Building, New Orleans, La.; Claude E. Hooten, Architect, D. M. Cornblatt and Assoc., Consulting Structural Engineers 206

Product Reports 208

Office Literature 215

Time Saver Standards 211

Index to Advertising 354

OFFICERS OF THE F. W. DODGE CORPORATION

James McV. Breed, *Chairman of the Board;* **Paul Abbott and Thomas S. Holden:** *Vice Chairmen of the Board;* **Howard Barringer,** *President;* **Irving W. Hadsell, Chauncey L. Williams:** *Executive Vice Presidents;* **Howard M. Thompson,** *Vice President and Treasurer;* **Julius T. Little, Robert F. Marshall, T. Oliver Morgan, H. Judd Payne:** *Vice Presidents;* **Carl S. Bennett, Ralph M. Hairston, O. O. Paulsell, Richard H. Ray:** *Regional Vice Presidents;* **Edwin H. Freed,** *Assistant Vice President and Comptroller;* **Walter F. DeSaix, Clifford G. Dunnells, Jr., Clyde Shute, Marc Wayne:** *Assistant Vice Presidents;* **Sanford D. Stockton, Jr.,** *Secretary;* **William C. Breed, Jr., George W. Morgan, Jr.:** *Assistant Secretaries;* **Irving B. Satin,** *Assistant Treasurer.*

OTHER F. W. DODGE SERVICES:

Dodge Reports and Dodge Statistical Research Service — Sweet's Files — "Planning Kit for Our New Home" — Chicago Construction News — Daily Pacific Builder — Denver Daily Journal — Real Estate Record & Builders' Guide.

Member of Audit Bureau of Circulations and Associated Business Publications. Architectural Record is indexed in Readers' Guide to Periodical Literature, Art Index, Industrial Arts Index and Engineering Index.

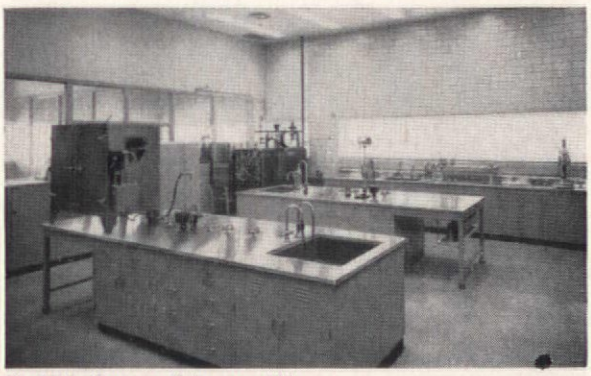
Every effort will be made to return material submitted for possible publication (if accompanied by stamped, addressed envelope), but the editors and the corporation will not be responsible for loss or damage.

Subscription rates in U. S., U. S. Possessions, and Canada: $5.50 for one year, $9.00 for two years, $11.00 for three years. Elsewhere, subscriptions from those who by title are architects or engineers, $6.50 for one year, $11.50 for two years, $15.00 for three years; subscriptions from all others outside U. S., U. S. Possessions and Canada, $20.00 a year. Single copy price, $2.00. Circulation Manager: Marshall T. Ginn. Change of Address: Subscribers are requested to furnish both old and new addresses, sending if possible the stencil impression from magazine wrapper. Allow four weeks for change.

Just STAINLESS STEEL SINKS and CABINET TOPS

Meet Highest Architectural Standards

St. Francis Hospital, Lynwood, Cal.



The Upjohn Company, Kalamazoo, Mich.

Hotel Dieu, New Orleans, La.

For many years, America's leading manufacturers of hospital, school and laboratory casework have turned to the Just Manufacturing Co. for the very finest in stainless steel sinks and cabinet tops because:—

JUST craftsmanship assures perfect fit for their cabinets.

JUST design gives unlimited freedom in planning to conform to modern architecture.

JUST precision construction reduces installation costs by eliminating "on-the-job" alterations.

And only in Just Line stainless steel products do you get ALL these features:—

- Patented Anti-Splash Rims around the entire perimeter of sink bowls.
- Patented double pitched drainboards.
- Seamless welded one-piece construction for utmost sanitation.
- Maximum use of heavy gauge stainless steel for lifetime durability.

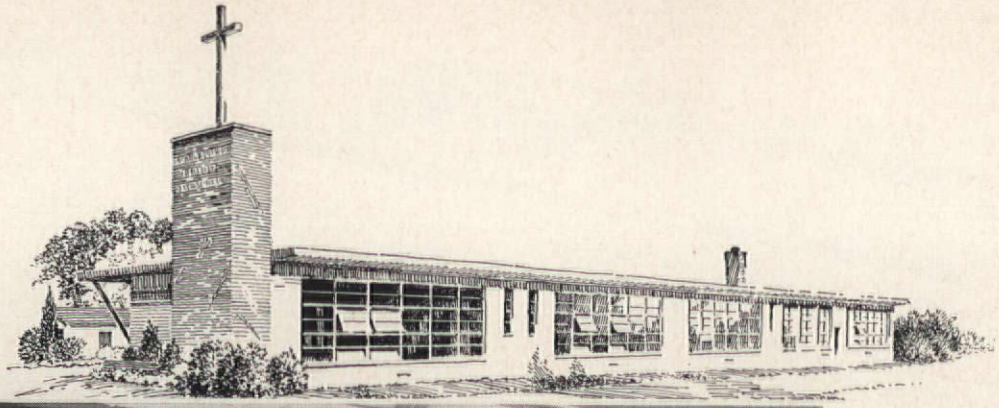
For further information see our Catalog 23-B in Sweet's Architectural File or write today for illustrated literature and name of your nearest field representative.

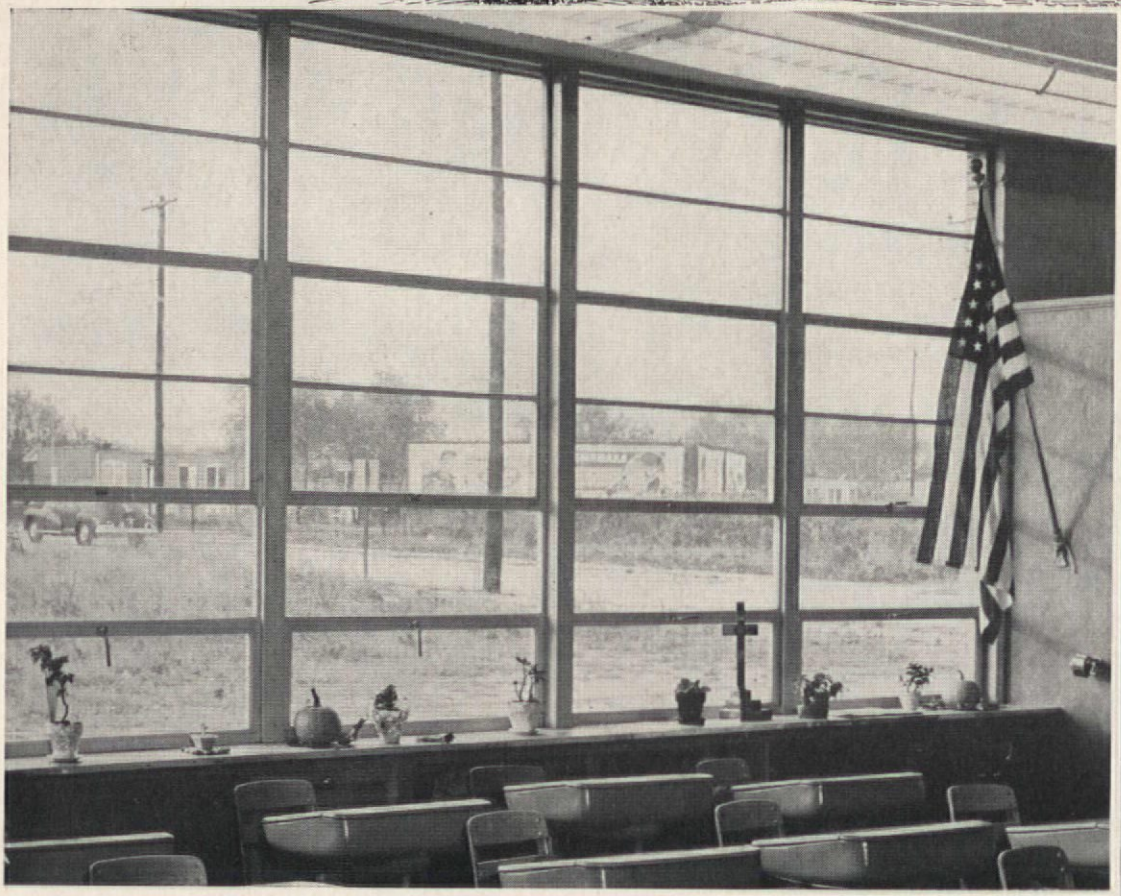
Just Manufacturing Co.

9233 KING AVENUE
FRANKLIN PARK, ILL.

IN THE GREATER CHICAGO INDUSTRIAL DISTRICT

THE GREATEST NAME IN *QUALITY* STAINLESS STEEL PRODUCTS





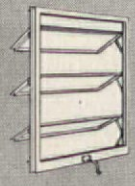
Martin Luther Christian Day School, Pennsauken, New Jersey, featuring Lupton Master Aluminum Windows.

Architect: William Dean Faint, Pennsauken, N. J.

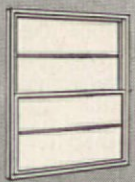
Contractor: Mark V. Kane, Merchantville, N.J.

LUPTON MASTER ALUMINUM PROJECTED WINDOW

LUPTON CASEMENT ALUMINUM OR STEEL



LUPTON ALUMINUM AWNING WINDOW



LUPTON ALUMINUM DOUBLE HUNG WINDOW

At Last! All-Season Windows for Schools

Come Spring . . . and the Lupton Master Aluminum Window with open-out ventilators shields against rain and bad weather.

Come Summer . . . and you get unsurpassed ventilation with air flow easily controlled through projected ventilators.

Come Fall . . . and the slim frames and narrow muntins admit maximum daylight as the days grow shorter.

Come Winter . . . and the Lupton Master Aluminum Window fits snug without forcing to assure complete weather protection.

School boards and school executives like the extremely low maintenance cost of Lupton Master Aluminum Windows. They never need paint. Will not warp, swell, shrink or rattle. They save money through years of trouble-free service. See the full line of Lupton Steel and Aluminum Windows in Sweet's. If you have a specific window problem, take advantage of Lupton's 40 years in the manufacture of metal windows.

MICHAEL FLYNN MANUFACTURING CO.
700 East Godfrey Avenue, Philadelphia 24, Pa.

LUPTON METAL WINDOWS

QUALITY APPROVED

Member of the Steel Window Institute and Aluminum Window Manufacturers' Association

PERSPECTIVES

AN ARCHITECTURAL STUDENT describing a house: "It's an old house with hand-hewn timbers and amortised joints."

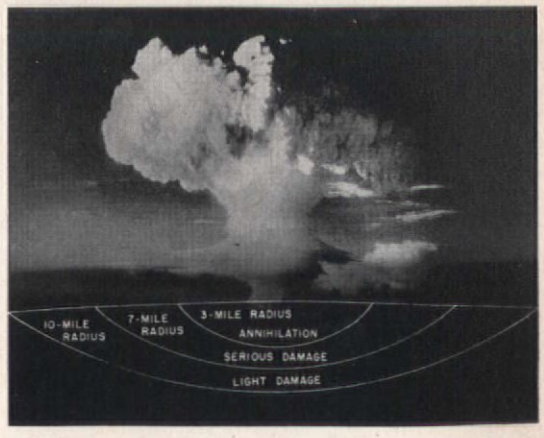
CONSTRUCTIONDISING: Taking a tip from other fields and their approach to a returning "buyer's market," the Associated General Contractors of America has coined a word and plans to put it to work. "Constructiondising," A. G. C. explains, is a name applied to the process of construction merchandising in competition with other items for the purchaser's dollars. A. G. C. has been sponsoring a competition among its members in search of the best plan for an all-out constructiondising program — although the construction industry, which set an all-time record for the first quarter of 1954, seems to be doing all right anyway.

ARCHITECTURE FOR ADOLESCENTS: The jury for the third annual school building competition of *The School Executive* Magazine (see page 24) remarked "a sharp difference in the quality of design between elementary schools [84 of them] and secondary schools [38]" submitted in the competition. Why? — the jury thought lack of clear educational leadership in the field of secondary programming might be the most significant reason: "While the substantial number of large secondary buildings were contemporary (in the sense that they were free from traditional detail and formalized plan), very few showed substantial difference in program concept from the high schools of the mid-1920's. They are basically conventional buildings — big, impersonal ones at that — in reasonably modern dress." Another suggestion was that the greater dollar importance of the secondary building might make for approach "in a spirit of greater caution." Finally: "Perhaps still another explanation is our greater affection for and understanding of children than of adolescents." Lawrence B. Perkins of the Chicago architectural firm of Perkins and Will was chairman of the jury, which included Donald Barthelme, of Donald Barthelme and Associates, Architects, Houston; John S. Cartwright, Allentown, Pa., Superintendent of Schools; Assistant Superintendent of Schools Wilfred F. Clapp, State Department of Education, Lansing, Mich.; and J. Stanley Sharp, of Ketchum, Giná and Sharp, Architects, New York.

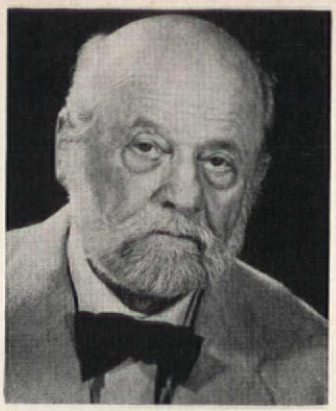
ATOMIC POWER DEVELOPMENT is the only way "to balance the energy books, to close the gap between what we have and what we need," and commercial development must be undertaken despite the high initial costs, the recent annual American Power Conference in Chicago was told. A. C. Monteith, vice president in charge of engineering for the Westinghouse Electric Corporation, pointed out that present world energy consumption shows a 400 per cent increase over the average rate of energy used in the period from 1860 to 1947 — and in those 87 years consumption was roughly half the amount consumed during the entire preceding 1860 years. Mr. Monteith, whose firm is building the atomic reactor for the nation's first civilian atomic power plant, warned that "we can sink into primitivism through exhaustion of power resources as well as through war."

ARCHITECTURAL INTELLIGENCE: "The foremost disciples of the brownstone school of architecture, near as Mr. De Koven could pin it down, were a Calvin Pollard, who did loads of brownstone fronts from 1830 to 1850, and a Henry Hobson Richardson, who did brownstone Romanesques in the Seventies and Eighties." — *The New York Times*, March 15, 1954.

AUGUSTE PERRET died in Paris on February 25. His passing was not much noted in this country — indeed, two weeks after his death *The New York Times* solemnly assured a caller that according to *its* records he was still alive — but in his own, where he had during the last war achieved belated official recognition, it was treated as a national bereavement. From the apartment house in the Rue Franklin to his latest work in the rebuilding of Le Havre, he had produced a monumental bibliography (see pages 10–11) on the uses of reinforced concrete. Writing in the English weekly, *The Architects' Journal*, the commentator Astragal says: "He was a giant figure, who towered above official neglect and the occasional spite of those who owed much to his inspiration and influence. He believed passionately in the future and in the beauty of the concrete frame, and has left an indelible mark on the architecture of this century. He has been *with*, rather than *of*, the Modern Movement, and although he had clearly little sympathy with some of the more vehement of his pupils, that does not make him a member of the reactionary camp." Or, as Turpin Bannister has put it, "He was a rugged individualist, who, even while accepting modern programs and materials, never sacrificed the integrity of his designs to mechanistic clichés." The American Institute of Architects, giving him its 1952 Gold Medal, hailed him as "great master of architecture whose resounding fame echoes to honor all members of our profession; firm disciple of the creed of truth to materials, honesty of structure, sincerity of form. . . ." There was a briefer tribute last month from Antonin Raymond: "The last great architect died six weeks ago."

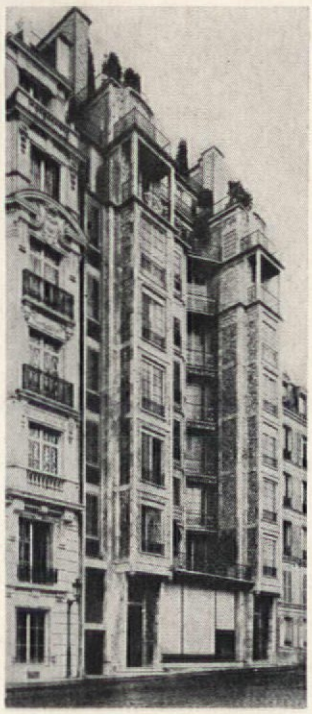


Perspective of the present: the great mushroom of the hydrogen blast in the 1952 Pacific tests; and the shadow it cast on the future

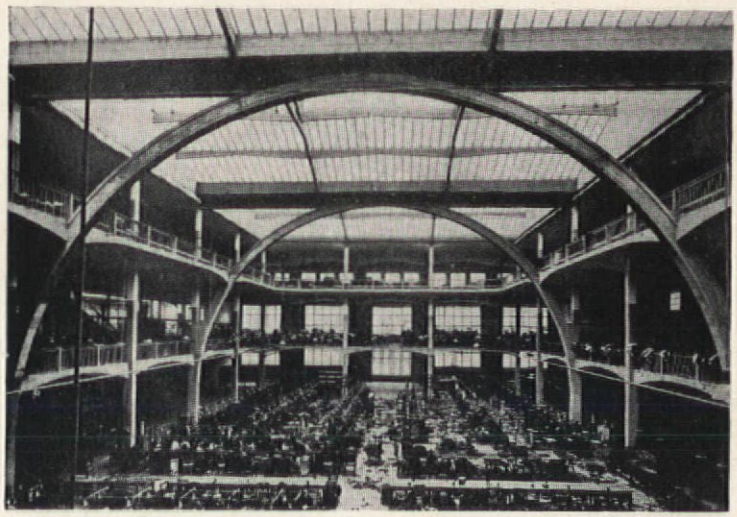


AUGUSTE PERRET: 1874–1954

Architect, Teacher, and — Not Least — Aphorist, Pioneer in Reinforced Concrete Construction — His Buildings and His Maxims Speak For Him

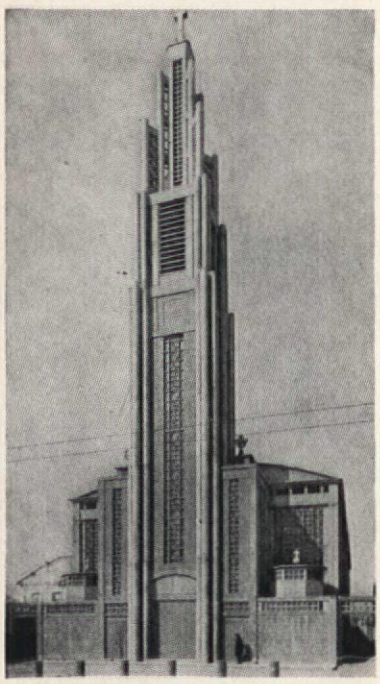


1903 — 25 bis Rue Franklin, Paris (the first all-reinforced concrete building)
"Construction is the mother tongue of the architect. An architect is a poet who thinks and speaks in terms of construction"

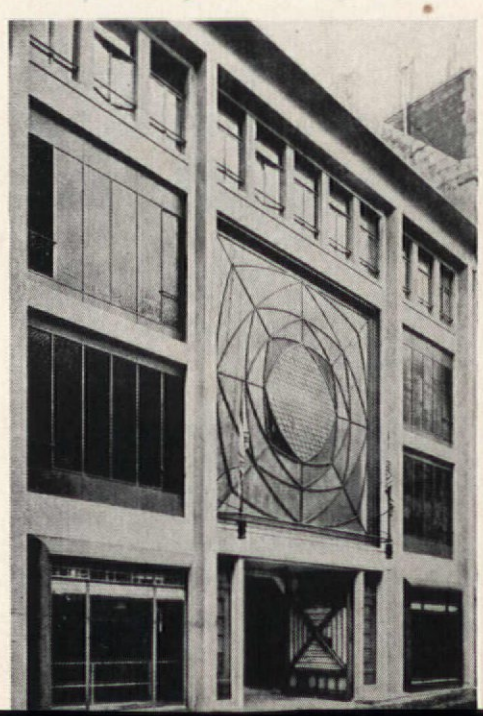


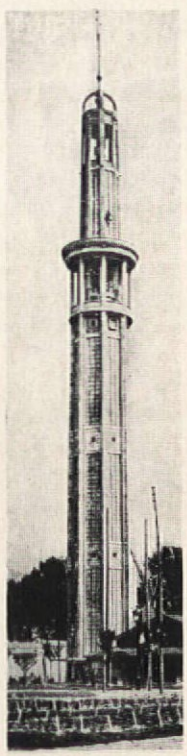
1919 — L'Atelier Esders (sewing factory)
"Architecture is the art of dramatizing the point of support"

1923 — Notre Dame du Raincy
"It is by the splendor of truth that a building attains beauty"

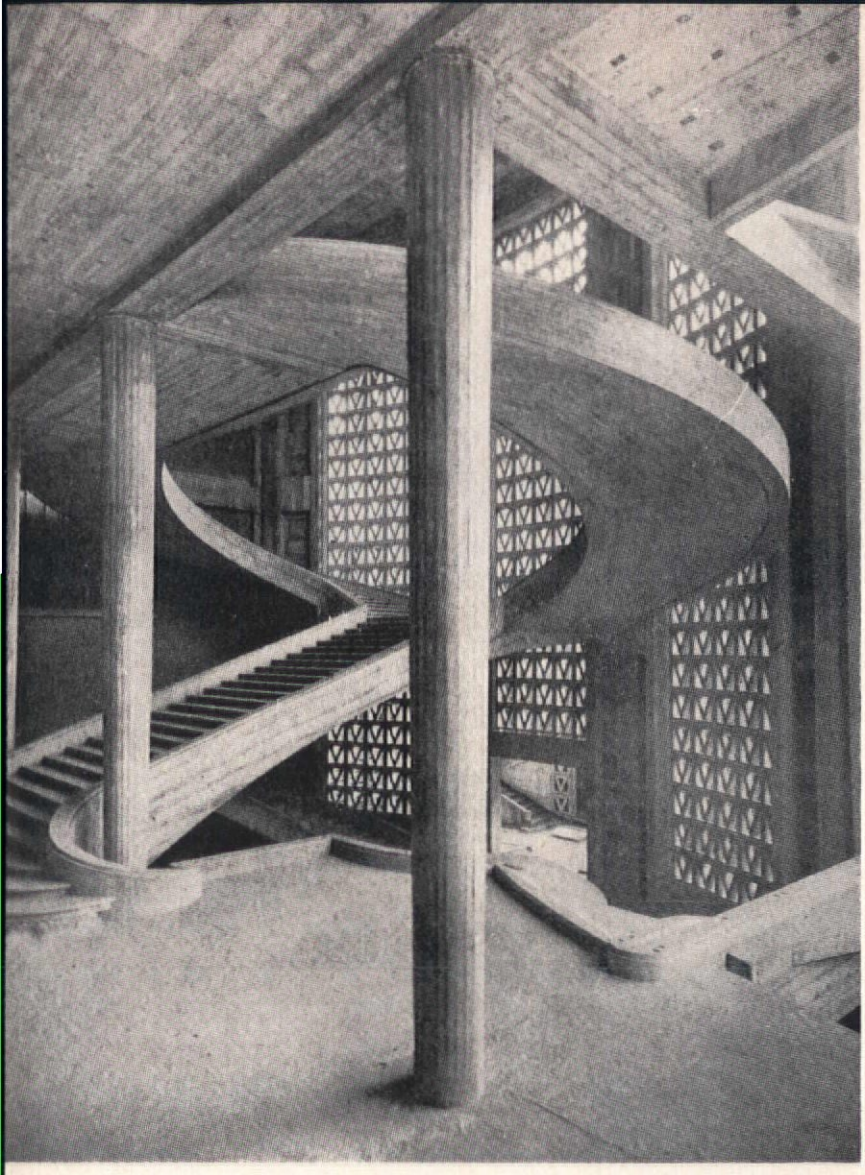


1905 — Garage, Rue de Ponthieu, Paris
"Movable or immovable, everything which occupies space belongs in the realm of architecture"





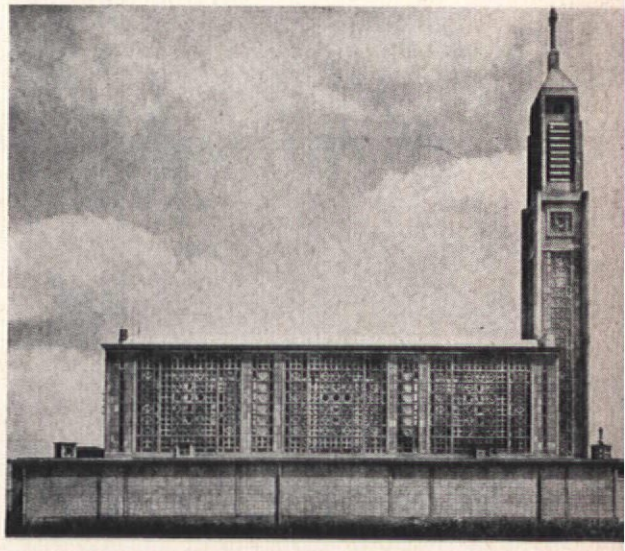
1924 — Tower, Grenoble
". . . to create from new materials buildings that would seem to have existed always"



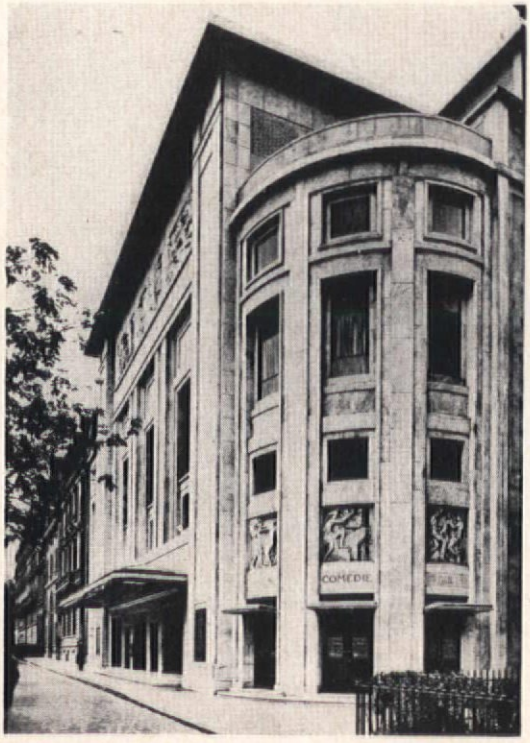
1937 — Museum of Public Works, Paris
"Stairways are the criterion of a civilization"

1930 — National Museum, Paris
"That which is beautiful does not need to be decorated: beauty is its own decoration"

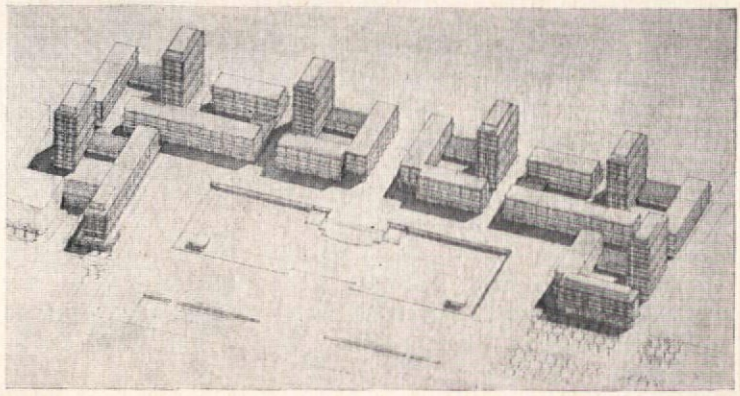
1925 — Ste. Thérèse, Montmagny
"One who disguises any part at all of a structure deprives himself of the only legitimate and the most beautiful ornament of architecture"



1913 — Théâtre des Champs Elysées, Paris
"We wanted this theater to be a jewel-case to set off the women, their dress, their jewels"



1949 — Reconstruction of Le Havre
"Architecture, of all expressions of art, is the one most subjected to material conditions. The conditions imposed by nature are permanent. Those imposed by man, temporal"



(Continued on page 306)

a **WASHINGTON** *report by Ernest Mickel*

PRIVATE FIRMS MAY HELP TO SET CRITERIA FOR MILITARY BUILDING

Defense Department Seeks Benefits of Industry Experience In Formulating Standards for Various Building Types

THE FREQUENTLY-EXPRESSED DETERMINATION of the Eisenhower Administration to bring the benefits of private business experience to the government and to use private resources whenever possible is beginning to be reflected in military construction planning. The Defense Department's new construction standards for barracks and bachelor officers' quarters are about to be promulgated as a military directive — they are being reviewed by the three services now; and the next set of standards, for warehouses, will be based on detailed studies of warehouse construction and use being made for the Department by the private firm of Giffels and Vallet, L. Rossetti, Inc., Architects and Engineers, of Detroit.

The present approach to formulation of military construction standards came in with the advent last fall of Admiral Joseph F. Jelley Jr. as director of construction for the Department of Defense and follows the concept of learning as much from industry experience as possible before drafting the military standards in final form, according to Fred Poorman, senior assistant to Admiral Jelley and chief of his technical division.

The division may make more contracts with private firms later on for similar studies on other building types, Mr. Poorman says, again to gain the benefits of industry experience. The areas showing greatest promise for this sort of treatment are being explored first, with the idea of moving into other types later on.

The Giffels and Vallet warehouse survey will be based largely on site studies and will contain firm recommendations for the Defense Department to follow in drafting the final standards. It is emphasized, however, that the actual construction standards will be prepared by Admiral Jelley's staff and not by the contracting firm.

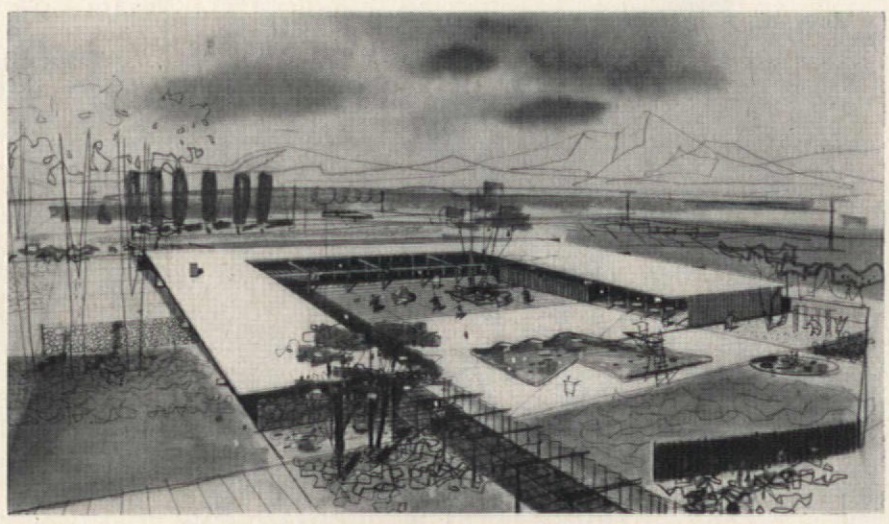
The Jelley office recognizes that warehouses and warehousing cannot be separated in deciding on the new criteria, Mr. Poorman said, with an intimation perhaps that long-range use had not always been sufficiently taken into account in preparation of military construction standards. So the Giffels and Vallet survey will study the effects of various warehousing methods on requirements for everything from column spacing and aisle arrangement to fire resistance.

Officials do not expect to come up with a rigid standard for all warehouses, or for all types of structures for all the services. A structure for storing caterpillar tractors and a structure for storing medical supplies will not, they promise, be required to meet identical specifications.

There has been considerable emphasis throughout the standards project on leaving the architect on the spot enough flexibility for adaptation to local conditions. Admiral Jelley told ARCHITECTURAL RECORD last fall that he had no intention of freezing design, that he wanted to standardize not style but space requirements. "You must be careful not to tie the local man down with fixed criteria," he said then. Admiral Jelley's boss, Franklin G. Floete, Assistant Secretary of Defense in charge of Properties and Installations, has even said he thinks all military buildings of a given type ought not to look alike. All the Department is after, he notes, is to make general standards applicable to all services in the interests of saving money.

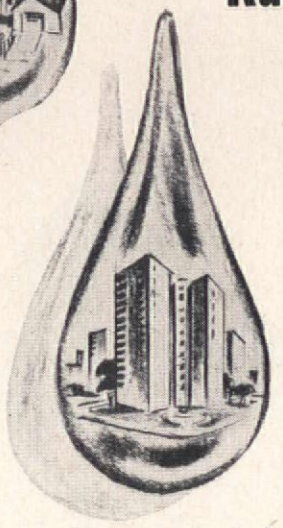
The forthcoming standards for living quarters have been nearly two years in preparation. They were the initial project of the Defense Department's first Director of Construction, Frank R. Creedon, after the office was established in the Department at the urgent direction of the Congress to attempt to coordinate the construction activities of the three services. Two sets of standards were originally prepared — one on three-story permanent structures and one on one- and two-story types. The final version, now circulating among the services for comment, covers two-story barracks only.

Admiral Jelley's office emphasizes that all criteria have been worked out in cooperation with representatives of each of the services and will be issued in cooperation with them. No major obstacles in the nature of inter-service differences are anticipated.



The ultimate in economy is to be achieved in the project shown above, a mess and recreation building at the California Air National Guard base at Van Nuys, Cal., designed by Welton Becket. The architect has contributed his services, and construction funds are to be raised through public subscription and industrial contributions

Little Drops of Water (Condensation) Ruined a Fine Home - - - Cost over a Million Dollars to an Apartment Development



They thought they would move their fine country home to a new site. The state highway was coming through. They could not! Account of condensation inside the walls, the sills had rotted away.

The owners of a path-breaking apartment house development in a great city had to pay a repair bill of more than a million dollars for ripping out condensation-soaked insulation and replacing damaged, plaster walls.

Today's tightly-built, high humidity houses create new problems of vapor pressure and vapor retention within. Sometimes excessive flow of vapor into building spaces occurs, and the formation of destructive condensation is enhanced, where a vapor barrier is lacking from the insulation or there is one with too many breaks in it, or one which while waterproof is not vapor-proof.

But there now is a new multiple accordion aluminum which forms a continuous, edge-to-edge blanket of uniform depth between studs or joists, giving the entire area maximum protection against condensation formation as well as against heat loss or intrusion.

Multiple accordion aluminum's surfaces have high radiation or heat ray reflectivity (97%); low absorptivity (3%); and low emissivity (3%). Conduction is low because of preponderant air spaces of low density. Aluminum and fiber layers retard convection, outer and inner.

The aluminum sheets, 500 ft. and 750 ft. long, are impervious to water vapor. Infiltration under the flat, stapled flanges is slight. Condensation formation on or within this type of insulation is minimized by the scientific construction of multiple layers of accordion aluminum, fiber and air spaces. The commercial form of multiple accordion aluminum is Infra Insulation, Types 6-S*i* and 4-S*i*.

The U. S. NATIONAL BUREAU OF STANDARDS has prepared an interesting study of MOISTURE CONDENSATION in walls of dwellings. Obtain a copy at our expense by using coupon.

COST OF INFRA INSULATION INSTALLED in new construction between wood joists, material with labor,

Type 6-S*i* under 9½¢ sq. ft.

Type 4-S*i* under 7½¢ sq. ft.

INFRA INSULATION, INC., 525 Bway., New York, N. Y.

INFRA INSULATION, INC.
525 Broadway, N. Y. C., Dept. R-5

Please send ☐ Samples of Infra ☐ N.B.S. pamphlet "Moisture Condensation in Building Walls."

Name_____

Address_____

Firm_____

there are fashions in architecture too!

The Texas Company building is only one of many projects, now in various stages of construction, which are using the superb qualities of Texlite Architectural Porcelain Enamel.

Fashion-wise, architectural porcelain enamel is the most magnificent, lightweight, durable, and colorful building material that America has witnessed in many years.

Texlite sales-engineers are located throughout the United States. Advise us and one will visit you immediately.

In our 75th year of progress

Architect, Claude Hooten, New Orleans
Contractors, Haase Construction Co., New Orleans

SEE OUR CATALOG IN SWEET'S

MANUFACTURERS OF QUALITY PORCELAIN ENAMEL AND PLASTICS FOR THE SIGN AND BUILDING INDUSTRIES

GENERAL OFFICE:
3305 Manor Way, Dallas, Texas
BRANCH OFFICES:
Chicago, Denver, Detroit, Houston, Tulsa, New York, N. Y., Los Angeles

TEXLITE INC.

A.I.A. ANNOUNCES 1954 HONORS: NO GOLD MEDAL

THE AMERICAN INSTITUTE OF ARCHITECTS has announced the 1954 Medal Awards to be presented at its 86th annual convention in Boston June 15–19, and the Gold Medal will not be given this year. Highest honor the A.I.A. can give an architect, the Gold Medal has been awarded 19 times since the first award, in 1907, to Sir Aston Webb of London, and most recently, in 1953, to William Adams Delano of New York. A list of 21 members to be advanced to Fellowship in the Institute has also been made public.

This year's Fine Arts Medal, the A.I.A.'s top award in the fine arts other than architecture, will go to Sculptor Julian Hoke Harris of Atlanta, himself an architect and member of the Georgia Chapter of the A.I.A., "in recognition of his notable contribution towards furthering the alliance of sculpture and architecture."

The Craftsmanship Medal, the Institute's highest award for craftsmanship in metal, wood, glass, ceramics and allied arts, will go to Maria Montoya Martinez, "the potter of San Ildefonso," a Pueblo Indian who, with her late husband, Julian Martinez, "not only revived the ancient forms and skills of their forebears, but added to them."

Honorary memberships will be awarded to Morton O. Withey of Madison, Wis., immediate past dean of the School of Engineering at the University of Wisconsin and chairman of the State Board of Registration for many years, and Dr. Richard Eugene Fuller, director of the Seattle Art Museum.

Report on the Program

Edward A. Weeks, editor of *The Atlantic Monthly*, will be the convention's "keynote" speaker. Highlights of the five-day program as so far arranged include:

Architectural education — Carl Feiss and Dean William Wurster of the School of Architecture of the University of California.

Hospital design trends — Marshall Shaffer, chief architect of the U. S. Public Health Service, moderator; Dr. Albert W. Snoke, Vincent G. Kling, A.I.A., Philadelphia, and Aaron N. Kiff, A.I.A., of York & Sawyer, New York.

School design trends — John W. McLeod, A.I.A. School Buildings Committee chairman, moderator; Educator Charles S. Gibson, John S. Sharp, A.I.A., of Ketchum, Giná & Sharp, New York, and Samuel E. Homsey, Wilmington.

Government impact on architecture — Douglas Orr, A.I.A., New Haven, presiding; Michael Waterhouse, a past president of the Royal Institute of British Architects; and Miles Colean.

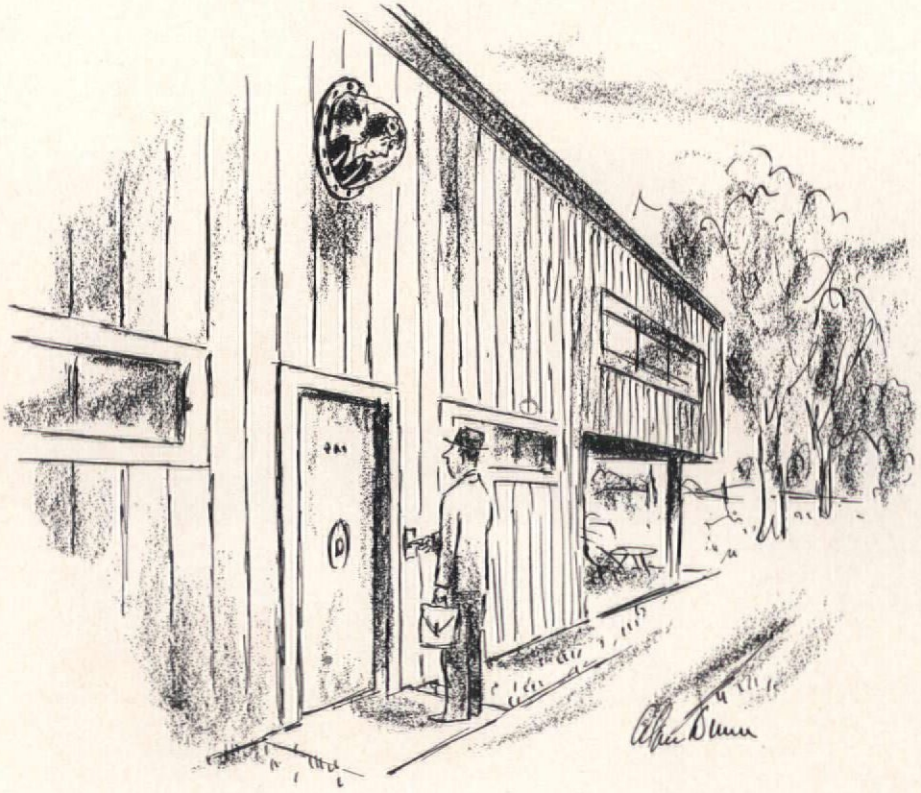
Changing philosophy of architecture — John S. Harbeson, of Harbeson, Hough, Livingston & Larson, Philadelphia, moderator; Eero Saarinen, Ralph Walker, Dean José Sert of Harvard's Graduate School of Design, Paul Rudolph.

What's New — Structural developments, Paul Weidlinger; Materials, Ben John Small; Lighting, C. L. Crouch; Homebuilding, Leonard Haeger.

The prospective Fellows are:

Roger Allen, Grand Rapids — Service to the Institute and Public Service; Adolph Otto Budina, Richmond — Public Service; J. Roy Carroll, Jr., Philadelphia — Design and Education; Harry Royden Dowswell, New York — Science of Construction; Sanford Williams Goin, Gainesville, Fla. — Service to the Institute and Public Service; Percival Goodman, New York — Design and Education; Walter Gropius, Cambridge — Education and Design.

Also Samuel Eldon Homsey, Wilmington — Design; Eugene F. Kennedy, Jr., Boston — Design; Juan F. Nakpil, Ermita, Manila — Public Service; Donald Siegfried Nelson, Dallas — Design; George Holmes Perkins, Philadelphia — Education; Harry Irvin Schenck, Dayton — Public Service; Irving G. Smith, Portland, Ore. — Service to the Institute; Stanley Albert Smith, Pullman, Wash. — Education; Louis Philippe Smithey, Roanoke — Service to the Institute and Public Service; Herbert Madison Tatum, Dallas — Design and Service to the Institute; Ludwig Mies van der Rohe, Chicago — Design; Royal Barry Wills, Boston — Design; William Wilson Wurster, San Francisco — Design and Education; Marion Sims Wyeth, Palm Beach — Design.



— Drawn for the RECORD *by Alan Dunn*

CORRECTION

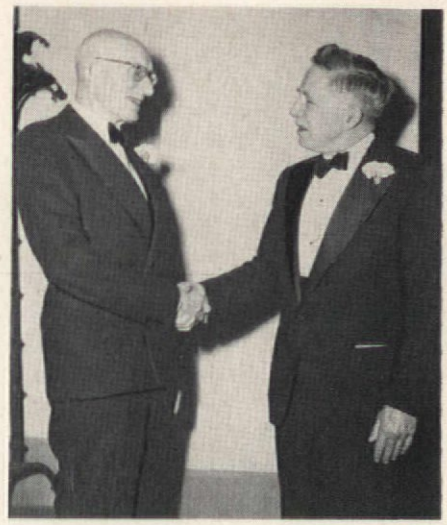
"Heating, Ventilating and Air Conditioning" is the correct title of the talk given before the Real Estate Board of New York by Alfred L. Jaros Jr., Jaros, Baum & Bolles, Consulting Engineers, New York City, as noted on page 195 of the April issue of the RECORD. The proportion of construction cost of air conditioning, heating and ventilation in the average New York office building in 1953 should have been given as 15 to 20 per cent.

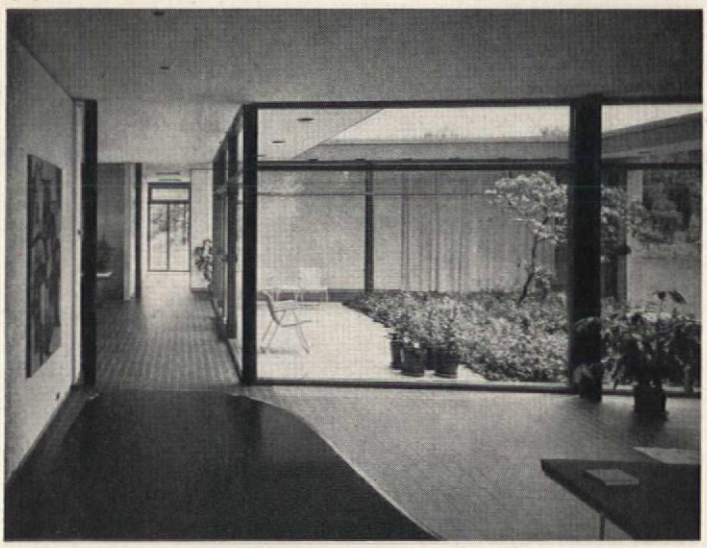
(*More news on page 16*)

THE RECORD REPORTS:

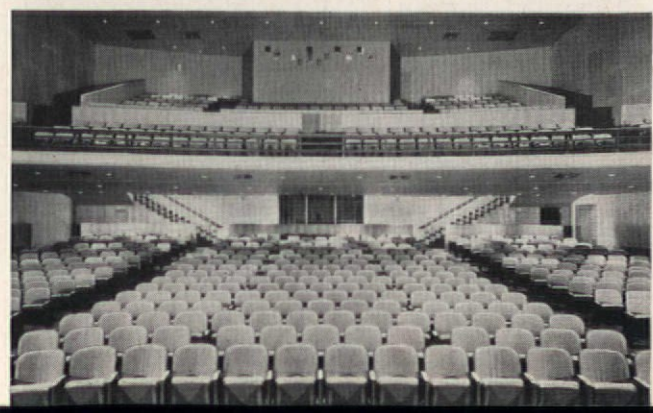
A.I.A. NIGHT AT THE METROPOLITAN

New York's Metropolitan Museum of Art was host to the 85th anniversary dinner of New York A.I.A., when awards were presented to New York publication winners in the first national A.I.A. journalism competition. Right, Pietro Belluschi receives top award for professional architectural magazine article for "The Spirit of the New Architecture" in ARCHITECTURAL RECORD, *October 1953 (first page reproduced below right). Below: photograph of Philip Johnson's house for Richard Hodgson, New Canaan, Conn.* (ARCHITECTURAL RECORD, *March 1953), won top architectural photography award for Ezra Stoller. Far right: 81-year-old Harvey Wiley Corbett felicitated by Chapter President Hugh Ferriss on receiving Chapter's 1954 Medal of Honor; the presentation preceded Mr. Corbett's death by just three weeks*





'THE SPIRIT OF THE NEW ARCHITECTURE'



Architects got first look at Metropolitan's new auditorium, to be dedicated May 11. Voorhees, Walker, Foley and Smith were the architects; Bolt, Beranek and Newman, acoustical consultants. Above: Metropolitan Director Francis Henry Taylor gets key from Neil Horgan of the George A. Fuller Construction Co., builders

Filtered Daylight through Frosted Aklo Glass in the Goss Printing Press Co. plant, Chicago. Architects: Olson & Urbain, Chicago.

It's easier to work in this "blue-green" daylight

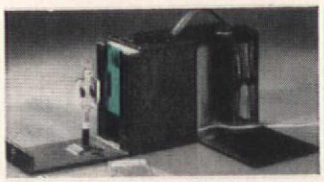
You know how irritating, how distracting it is to work with glare hitting your eyes. Windows of Blue Ridge Frosted *Aklo** Glass subdue that time-wasting annoyance—yet let in plenty of useful daylight.

Frosted *Aklo* Glass softens and diffuses direct sunlight and sky brightness. It reduces reflected glare from ice and snow, and dazzling all year reflections from other bright surroundings.

Frosted *Aklo* Glass makes working areas cooler in summer. In ¼" thickness, it shuts out as much as 44% of the sun's heat.

People can produce more in this comfortable daylight. It makes working next to windows easier, giving a building more usable floor space.

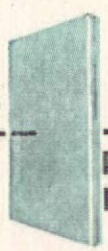
SEE *AKLO'S* ADVANTAGES IN HEAT-IN-MOTION TEST!



Here's a test that gives you quick, conclusive understanding of the benefits that *Aklo* users enjoy. Before you design for new construction or remodeling, see HEAT-IN-MOTION right at your desk. Ask your L·O·F Distributor or Dealer for this radiometer demonstration. Look for his name in the phone book yellow pages. Or write directly to Libbey·Owens·Ford Glass Co., Patterned & Wire Glass Sales, B-1554 Nicholas Bldg., Toledo 3, Ohio.

The booklet, "Filtered Daylight", is yours for the asking, too. *®

BLUE RIDGE
AKLO GLASS

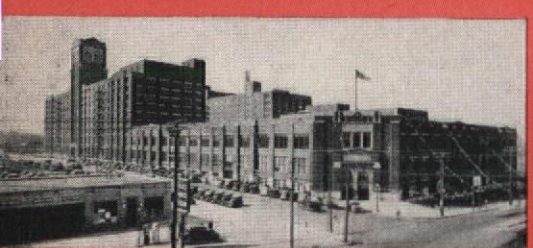


FILTERS DAYLIGHT L·O·F GLASS

"THE WORLD'S LARGEST DEPARTMENT STORE"

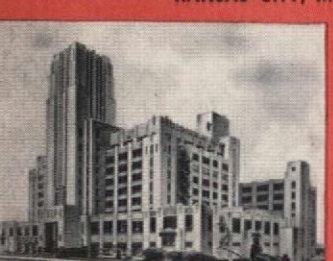
Since 1906 Sears, Roebuck and Co.

Temperature in 10 of SEARS 11 Large Mail Order Plants is POWERS Controlled. Only six are shown.
Others are located in Atlanta, Boston, Dallas and Seattle.

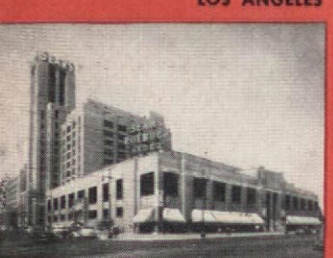


KANSAS CITY, MO.

MEMPHIS

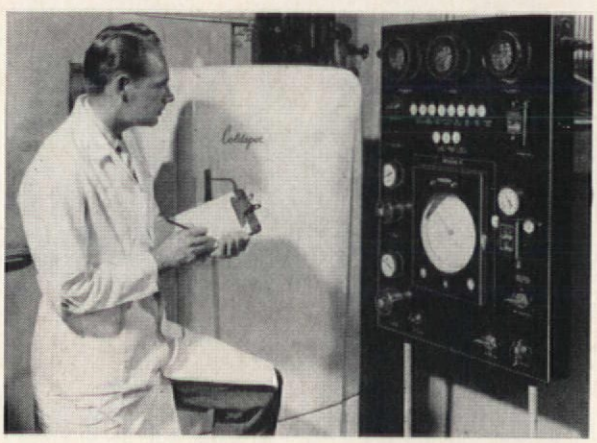


LOS ANGELES



MINNEAPOLIS

CHICAGO
"Mail Order Capital of the U.S.A."



SEARS "COLDSPOT" REFRIGERATORS

Are Tested in their Modern Laboratories
Regulated by POWERS Controls

"Satisfaction or Your Money Back"— Sears famous guarantee, is one of the reasons for their phenomenal growth and success. They were one of the first to establish testing laboratories to carefully check merchandise.

Photo above shows one of 4 Powers Temperature and Humidity control panels regulating 4 air conditioned rooms of varying size and temperature range for testing the following products: domestic refrigerators (ice and mechanical), freezer chests, milk coolers, walk in coolers, room coolers —**and many other of the 110,000 items sold by Sears.**

Typical Modern
AIR-CONDITIONED SEARS RETAIL STORE
at Harlem and North Ave., Chicago

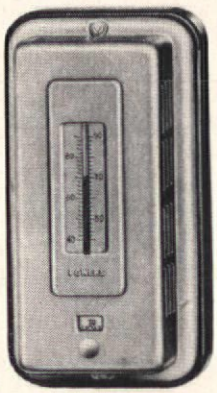
Architects: CARR & WRIGHT, INC. • Consulting Engineer: NORMAN E. BUETER
Contractors: MEHRING & HANSON CO. • THE HAINES CO.

This and Over 50 Other SEARS Stores from Coast to Coast are POWERS Controlled

has used

POWERS PNEUMATIC *Control Systems*

In Many of its Prominent Buildings



Powers Room Type Thermostat pneumatically regulates heating and air conditioning systems. Outstanding for accuracy and dependability.

After 40 to 47 Years of Service in Sears Chicago Administration and Merchandise buildings, Powers pneumatic systems of temperature control are still in operation.

Fuel savings and greater comfort obtained here by the prevention of OVER-heating have paid a profitable return on the investment in Powers control. With today's higher fuel costs savings are larger than ever before.

When you select a temperature control system, consider Powers. Users report lower maintenance cost and 30 to 50 years of dependable service.

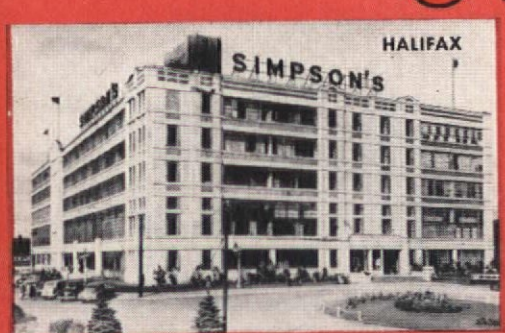
THE POWERS REGULATOR CO.

Skokie, Ill. • Offices in Over 50 Cities in the U.S.A., Canada and Mexico

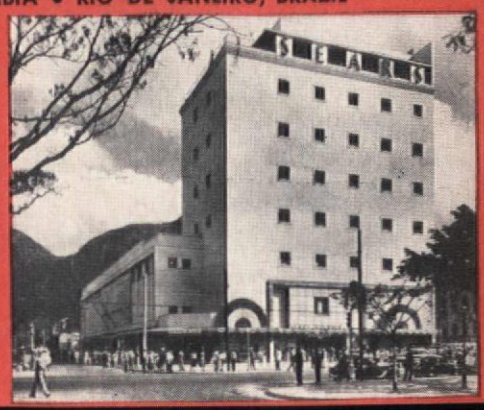
OVER 60 YEARS OF AUTOMATIC TEMPERATURE CONTROL

(b42)

Mail Order Plants SIMPSON-SEARS LTD., Canada—Also Regulated by POWERS

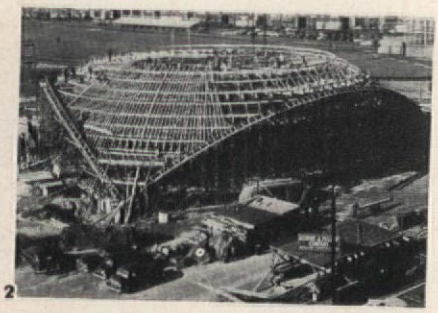


POWERS Controlled SEARS Stores in SAO PAULO, BRAZIL • BARRANQUILLA, COLOMBIA • RIO DE JANEIRO, BRAZIL

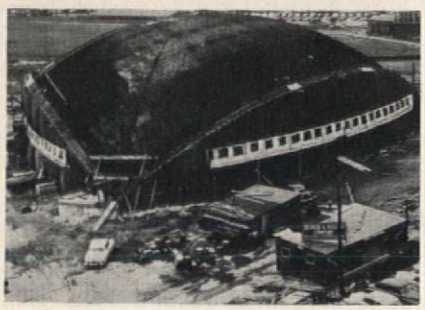


THE SAARINEN DOME — A YEAR LATER

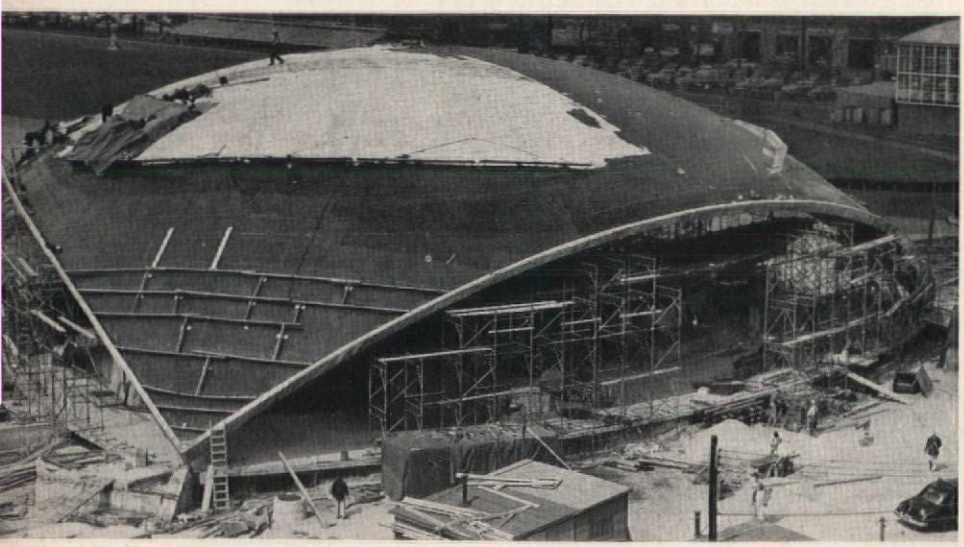
1, 2



3, 4



1. Formwork partially completed. Edge beam forms were erected, then timbers forming concentric rings, followed by stringers from bottom to top. 2. Matched lumber was nailed to stringers to receive concrete. 3. Reinforcing in place. 4. Double forms with ports were used on steep slopes near supports; above these forms are platforms for workers. Below: the dome after stripping of forms



THERE ARE NO TWO PARALLEL LINES in it." This remark, while said half-facetiously by one of the men on the construction work of Eero Saarinen's M.I.T. auditorium, appears to reflect fairly well the major problems a new structural conception has presented for the builder from the time the foundation lines were laid out, starting in April of last year.

Oddly enough, according to the construction superintendent for George A. Fuller Co., Douglas Bates, erecting the thin-shell dome (actually it's one eighth of a sphere) was easier than the rest of the superstructure. Establishing reference points — an exercise in spherical geometry — for putting up formwork for the floor of the main auditorium, its supporting structure, and the laying out of the small auditorium and rooms on the lower level, seems to have been the most difficult task.

The center of interest, though, is still the dome which has about 640 tons of structural concrete and 100 tons of reinforcing steel to support at only three small points. For 80 per cent of the dome, concrete is only 3½ in. thick. Next to the abutments it is nearly 36 in. thick.

Actually the dome, for which structural engineering was done by Amman and Whitney, only rests on the abutments, and is not directly connected to them. A bearing arrangement is employed which has two castings shaped like inverted saucers, one fitting over another. The casting set into the dome is ground to a radius of 120 in. and the casting in the abutment has a 100-in. radius curve. The weight of the roof will keep the top casting bearing on the bottom one. This was done to take care of any movement of the dome due to changes of temperature, and possible settling of the dome when the forms were removed.

(*Continued on page 318*)

Near right: crane placing concrete in double forms from a hopper. Far right: strips of felt being mopped with asphalt to dome

Leading Architects

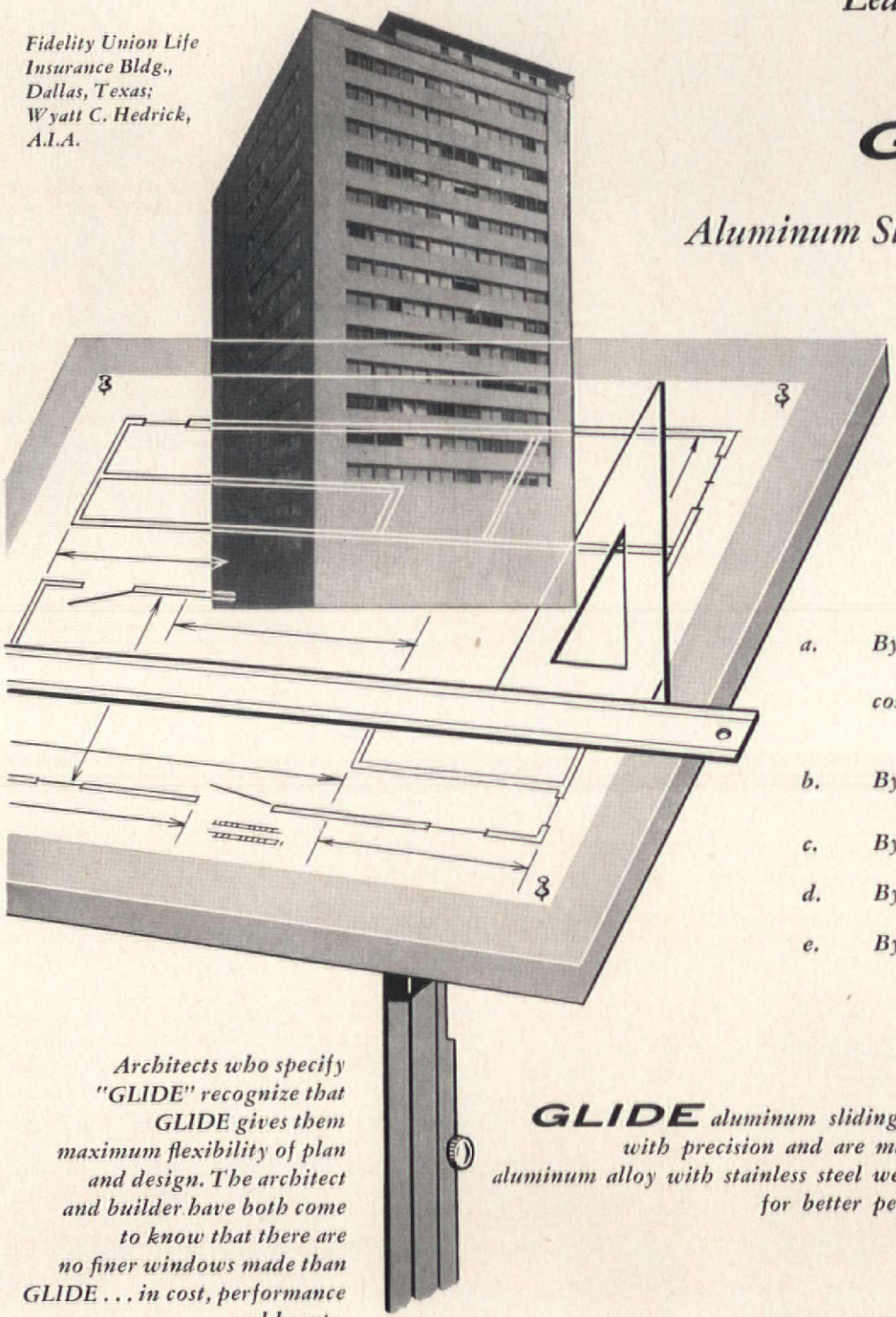
Choose

GLIDE

Aluminum Sliding Windows...

because:

Fidelity Union Life Insurance Bldg., Dallas, Texas; Wyatt C. Hedrick, A.I.A.



GLIDE

offers more economies in the initial building cost...

a. *By eliminating the need for costly cleaning apparatus, costly scaffolding and special window cleaning bolts.*

b. *By easier and less expensive installation.*

c. *By never requiring painting.*

d. *By lowering insurance rates.*

e. *By a guarantee for the entire life of the building.*

Architects who specify "GLIDE" recognize that GLIDE gives them maximum flexibility of plan and design. The architect and builder have both come to know that there are no finer windows made than GLIDE... in cost, performance and beauty.

GLIDE *aluminum sliding windows are engineered with precision and are made of the finest extruded aluminum alloy with stainless steel weatherstripping and rollers for better performance and endurance.*

GLIDE *WINDOWS, INC.*
7463 Varna Ave., North Hollywood, Calif.

In Sweet's catalogue.

Send for your complete GLIDE brochure.

Never so much offered to

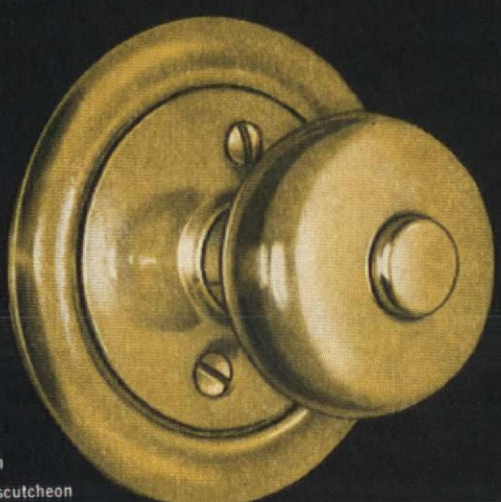
So much...because now Yale gives you not just one, but two completely new series of modern locksets, capable of solving virtually all your lock problems. And they feature so many advantages: Uniquely handsome, modern designs. The convenience of master keying. Faster, foolproof installation that cuts time and labor costs. Plus world-famous Yale Security and precision engineering.

For so many...because whether you want locks for your low-cost housing jobs or beautiful locks for the finest residential homes, light commercial or institutional installations...there's a lock for every job in the new Yale 5200 and 5300 series.

For so little...because only Yale can give you all these exclusive advantages at such a surprisingly low cost. For comprehensive details with full color illustrations, send for FREE CATALOG on either 5200 or 5300 series, or both. Write to our Stamford office today.

THE YALE & TOWNE MANUFACTURING COMPANY
LOCK & HARDWARE DIVISION
STAMFORD, CONN.

so many for so little



FAIRFIELD with
GREENWICH escutcheon

New Yale 5200

TUBULAR LOCKSET

5 functions. Pin tumbler security. Large decorative slip-on escutcheon and slip-on entrance handles. Available in satin finish aluminum or bright brass.

NASSAU with
NEWPORT escutcheon

New Yale 5300

CYLINDRICAL LOCKSET

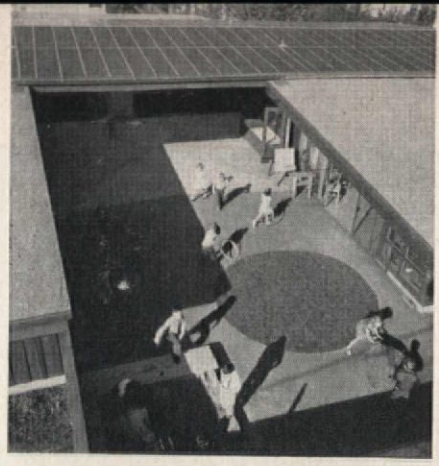
16 functions. Pin tumbler security. 4 knob designs combine with 8 escutcheons; 2 entrance handles; 2 lever handles. In brass, bronze or aluminum. Meet * Fed. Spec. Type 160.

YALE REG. U.S. PAT. OFF.

YALE & TOWNE

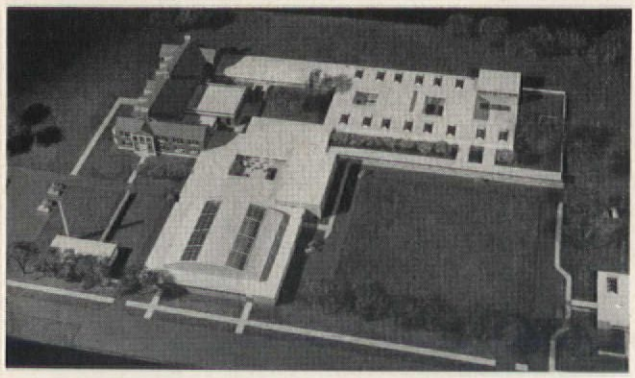
FOR BETTER SCHOOLS: SEVEN WINNERS

FROM A FIELD OF 139 ENTRIES a five-man jury headed by Lawrence B. Perkins of the Chicago architectural firm of Perkins and Will picked seven projects by five firms (photos on this page) to receive the top awards in the third annual competition sponsored by *The School Executive Magazine* "for better school design." The awards were announced and the winning designs exhibited at the annual convention of the American Association of School Administrators at Atlantic City in February (ARCHITECTURAL RECORD, April 1954, page 20).



Rondal Partridge

White Oaks Elementary School Annex, San Carlos, Cal.; John Carl Warnecke, architect. Each classroom has its own patio



Detroit University School and Grosse Pointe Country Day School, Grosse Pointe Woods, Mich.; Leinweber, Yamasaki & Hellmuth, architects. A nursery-through-12th-grade addition to existing school

Joseph W. Molitor

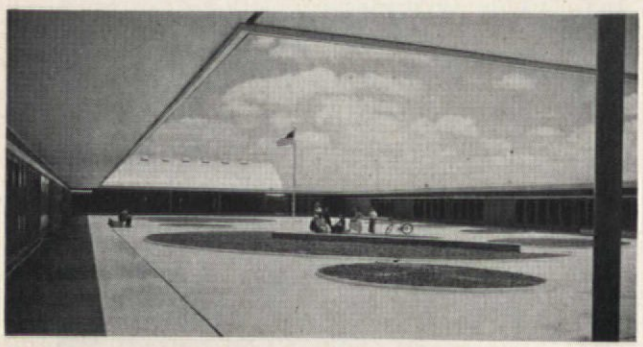
Double Oaks Elementary School, Charlotte, N. C.; A. G. O'Dell Jr., architect. This school for an extensive Negro housing development provides separate yards for glass-walled classrooms and library

Roger Sturtevant

Deer Park School, Fairfax, Cal.; John Lyon Reid, architect. The beautiful site, a park of redwoods, oaks and bay trees, was a problem as well as an asset: limited level area, trees to block daylight

Roger Sturtevant

Manor Elementary School, Fairfax, Cal.; John Lyon Reid, architect. Gabled roof provided fresh approach to bilateral lighting, gave each class a "house" of its own in structure designed for strict economy



Ulric Meisel

Mirabeau B. Lamar Junior High School, Laredo, Tex.; Caudill, Rowlett, Scott & Associates, architects. Large-area structures keep indoor-outdoor relationship without sacrificing sun control

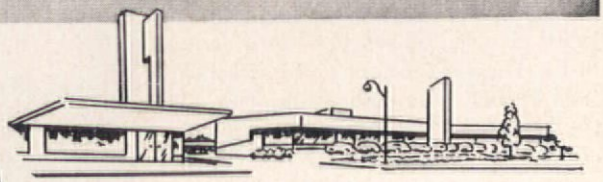
Ulric Meisel

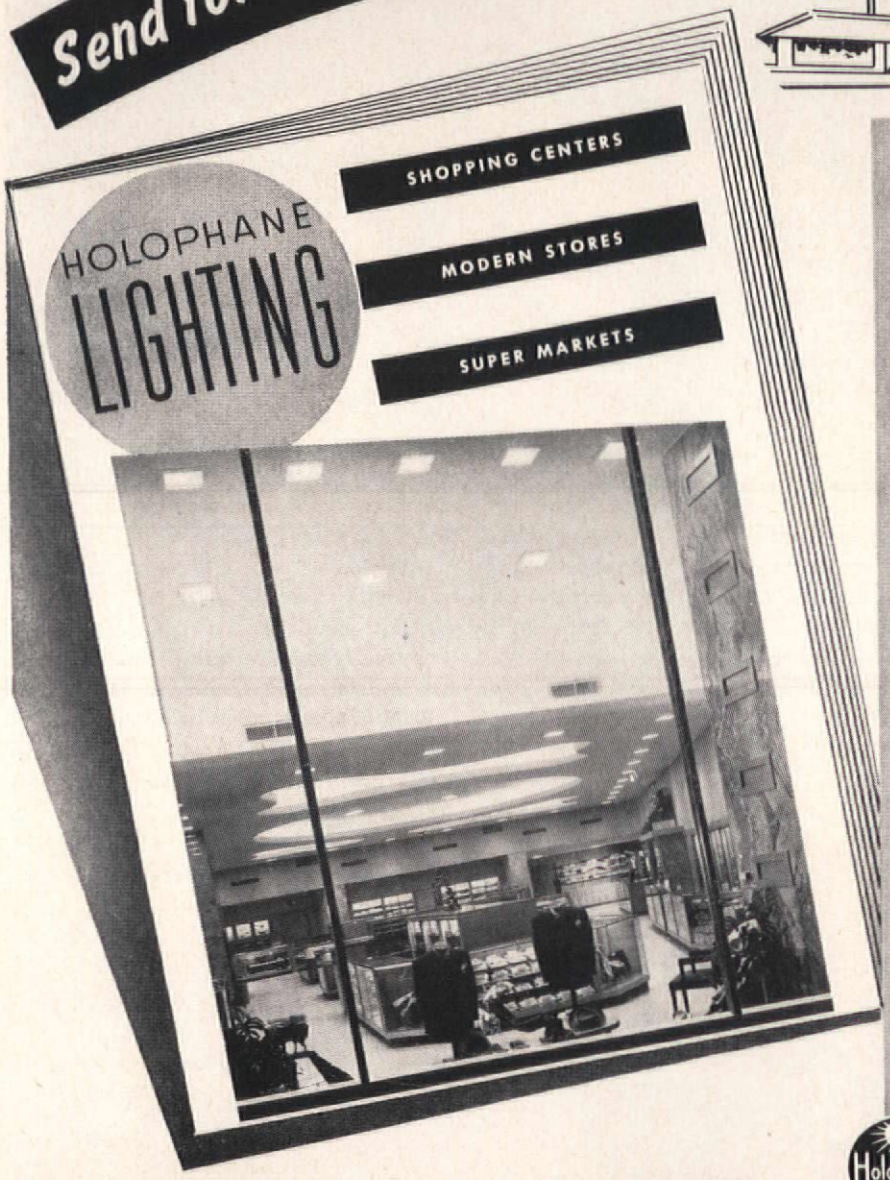
Sam Houston Elementary School, Port Arthur, Tex.; Caudill, Rowlett, Scott, Neff & Associates, architects. Brick is left exposed on interiors for ease of maintenance

Ready NOW!

Send for your Copy

Most Complete Authoritative Guide to Modern STORE LIGHTING Ever Published!





- **Compiled by Holophane Lighting Engineers**
- **80 Pages of Up-to-date Vital Information**

Shows how to Build BETTER SALES with BETTER LIGHTING

Some of the Subjects Covered

Accent Lighting
Appliance Stores
Application
Auditorium Entrance
Automobile Service
Bakery
Banks
Book Shop
Brightness Control
Candy Store
Carpet Lighting
Chain Stores
China, Glass Stores
Coat Shop
Color
Cosmetic Shop
Department Stores
Door Lighting
Drapery Store
Drug Stores
Economic Analysis
Elevator Entrance
Escalators
Equipment Index
Exterior Stairs
Flower Shop
Food Stores
Furniture Store
Fur Stores
Gift Shop
Glare
Glass Shops
Haberdasheries
Hardware
Jewelry Stores
Kitchenware
Lamp Depreciation
Lamp Sizes
Lamp Store
Light Control
Light for Selling
Mall Lighting
Men's Clothing Stores
Offices
Outdoor Walkways
Public Corridors
Public Stairs
Reflection Factors
Restaurants

- **110 Photographs of Store Installations — in Wide Variety**
- **64 Store Layout Plans • 69 Unit Photos • 55 Diagrams**

This important reference book is a must—for everyone responsible for modern store lighting. Available to architects, engineers, store executives without charge.

Holophane

Please attach Coupon to your letterhead

Holophane Company, Inc. AR
342 Madison Avenue
New York 17, N. Y.

Please send me without charge copy of your new book on Store Lighting.

FIRM NAME_____

ADDRESS_____

INDIVIDUAL_____

HOLOPHANE COMPANY, Inc.

Lighting Authorities Since 1898 • 342 MADISON AVENUE, NEW YORK 17, N.Y.
THE HOLOPHANE COMPANY, LTD., THE QUEENSWAY, TORONTO 14, ONTARIO

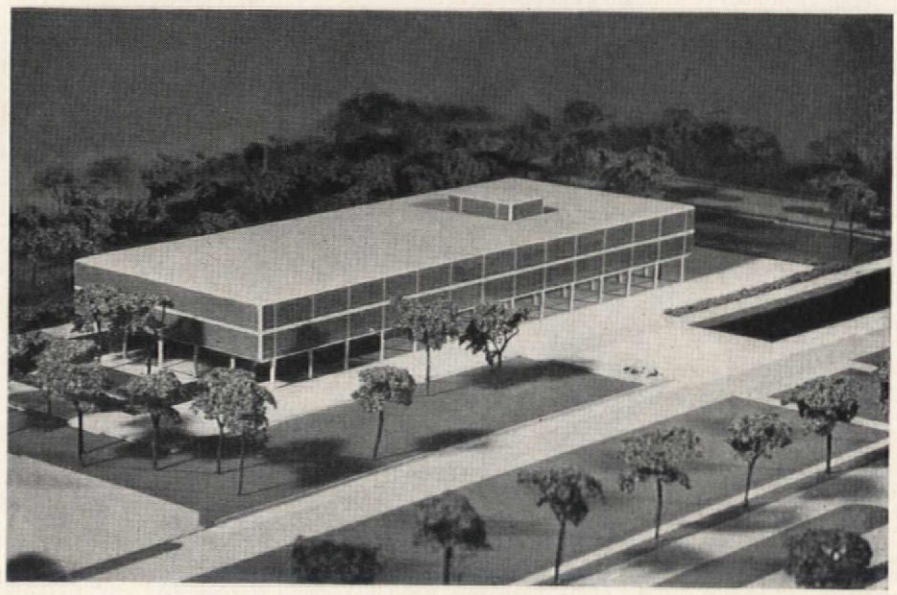
NEWS FROM CANADA *by John Caulfield Smith*

WINNERS ANNOUNCED IN GALLERY COMPETITION

THE COMMISSION FOR CANADA'S projected National Gallery in Ottawa went to the Winnipeg firm of Green, Blankstein, Russell and Associates, winners of the competition held by the Department of Citizenship and Immigration. The architects were awarded $10,000 as initial payment on the contract.

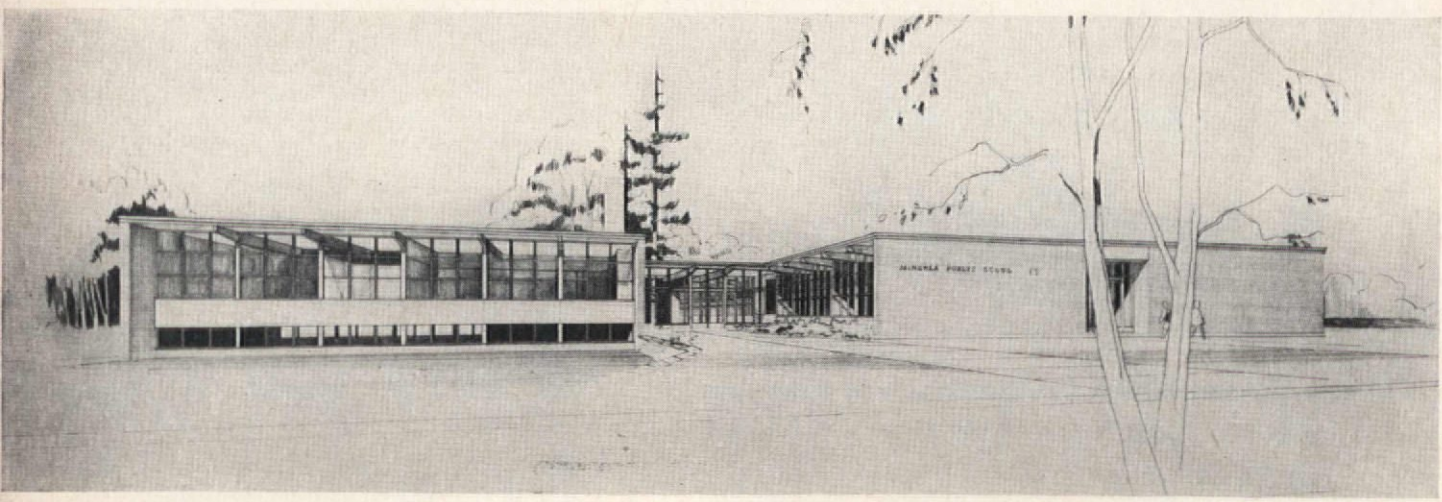
The winning design is for a three-story building (shown at right) which will cost an estimated $5 million. The site faces the banks of the Rideau River.

Judges for the competition were Alfred Barr, Director of the Museum Collection at New York's Museum of Modern Art; John Bland, Director of the School of Architecture at McGill University; and architect Eero Saarinen of Bloomfield Hills, Mich. The jury's report on the design said: "The design shows an extraordinary sense of unity and feeling of classic calm achieved through contemporary architectural means. The simple, rectangular building mass, set upon a colonnade, stands upon an impressive stone terrace. This fine architectural concept is carried through with control and sureness and a feeling for detail and proportion. The scale of the structure gives a sense of power and dignity. It is consistent, and there is no doubt the building will have great architectural distinction."



Situated on the first floor of the building are a foyer, gallery, auditorium and cafeteria. The second floor, scheduled to hold the gallery's painting collection, is a completely open area, where exhibits will be mounted on partitions. Administrative offices are located on the third floor, along with the library, the department of prints and drawings, and a 100-seat lecture room. A large part of this

(*Continued on page 30*)



NEW SCHOOL DESIGNED FOR DOUBLE DUTY

MINEOLA PUBLIC SCHOOL, to be built at Port Credit, Ont., has been planned to fulfill two functions — one wing is intended to accommodate 11 classrooms and offices for the school staff, the other is for the administrative offices of the local Board of Education. If further space for classes is required, however, the office wing can be converted for this use. Both wings can be expanded.

It is expected that the building will cost about $214,744, giving a per sq ft cost of $8.75. The architects, Craig and Madill, report that this figure is a new low for schools in this locality.

GOODYEAR PROUDLY ANNOUNCES

HEAVY-DUTY HOMOGENEOUS VINYL FLOORING!

Heavy Gauges, Superior Abrasion-Resistance, No Waxing —uniform color AND compounding all the way through!

NEW Goodyear HDH—Heavy-Duty Homogeneous—Vinyl is the one *all*-vinyl flooring material specifically designed to excel in heavy-traffic, large-area installations.

It is a boon to architects and contractors who have long sought a vinyl flooring material of top commercial quality—possessing the carefree maintenance, high eye-appeal and abrasion resistance which already have made vinyl the popular choice of millions of homes.

NOW IT COMES IN HEAVY GAUGES—1/8 and 3/32" thick—especially milled to give you homogeneous, top quality all the way through! The color and the compounding are uniform—extend solidly through Goodyear HDH Vinyl from surface to back.

Every square inch of Goodyear HDH *All*-Vinyl Flooring is factory pre-polished to a natural, lasting luster—presenting a surface so dense it *never requires waxing.*

There are 8 lastingly lovely colors in this new series—giving a wider selection of color to this heavy-duty *All*-Vinyl Goodyear Flooring—available in pre-cut tiles and full 45"-wide rolls.

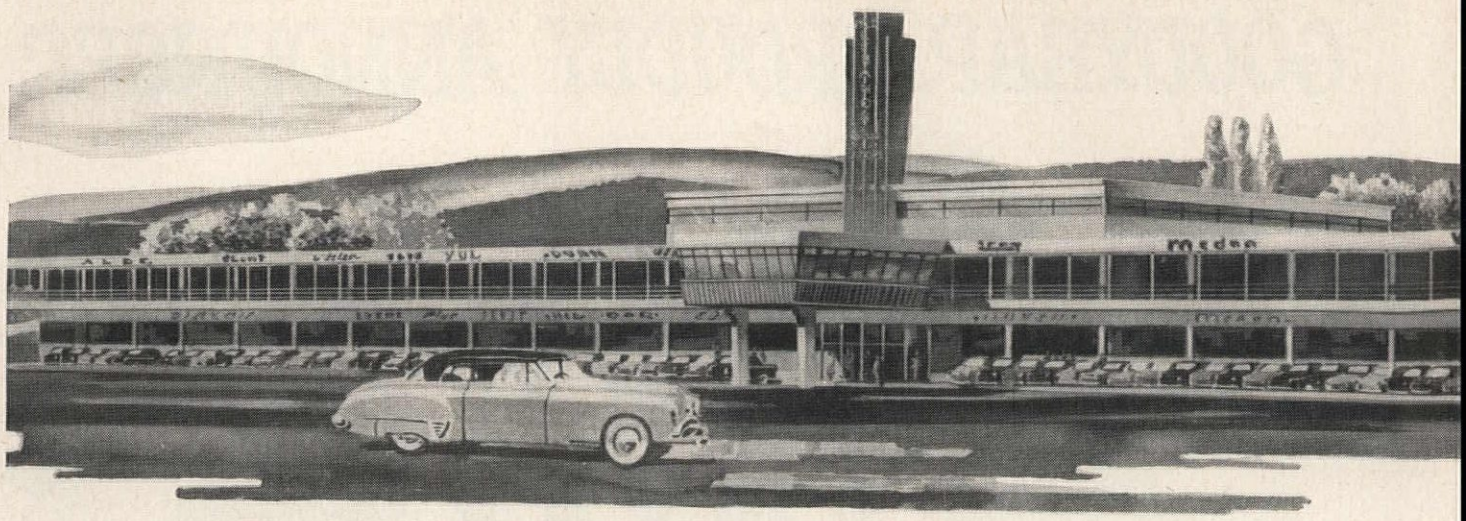
SEE IT—TEST A SAMPLE. We believe you'll specify it on your very next job which calls for a carefree, rugged, stunningly stylish floor! *The years of beautiful service it will deliver will testify to the wisdom of your choice!*

FOR FULL INFORMATION AND SPECIFICATIONS WRITE: Goodyear, Flooring Department Q-8311, Akron 16, Ohio.

GOODYEAR *All-Vinyl* Flooring

BY THE TILE AND IN FULL 45"-WIDE ROLLS

We think you'll like "THE GREATEST STORY EVER TOLD"—every Sunday—ABC Radio Network—THE GOODYEAR TELEVISION PLAYHOUSE—every other Sunday—NBC TV Network



FOR PITTSBURGH'S BRAND NEW

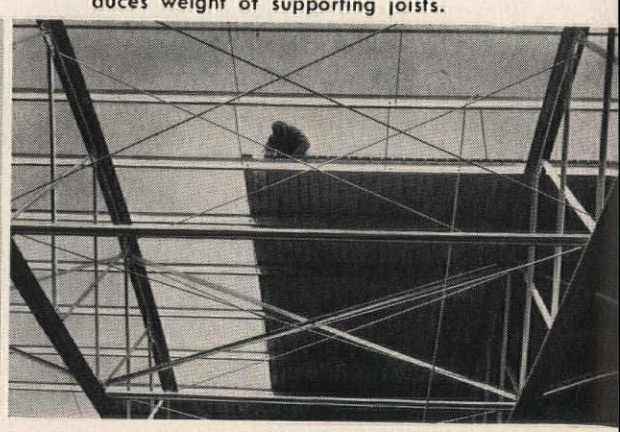
Mt. Lebanon

Architect . . . Arthur Tennyson, Pittsburgh, Pennsylvania
Designers . . . William and Barbara Pfouts, Pittsburgh, Pa.
Contractors and Builders . . Larson Construction Company, Pittsburgh, Pennsylvania
Roofing Contractors General Roofing Company, Pittsburgh, Pa.
Supplier . . . Tom Brown, Inc., Pittsburgh, Pennsylvania

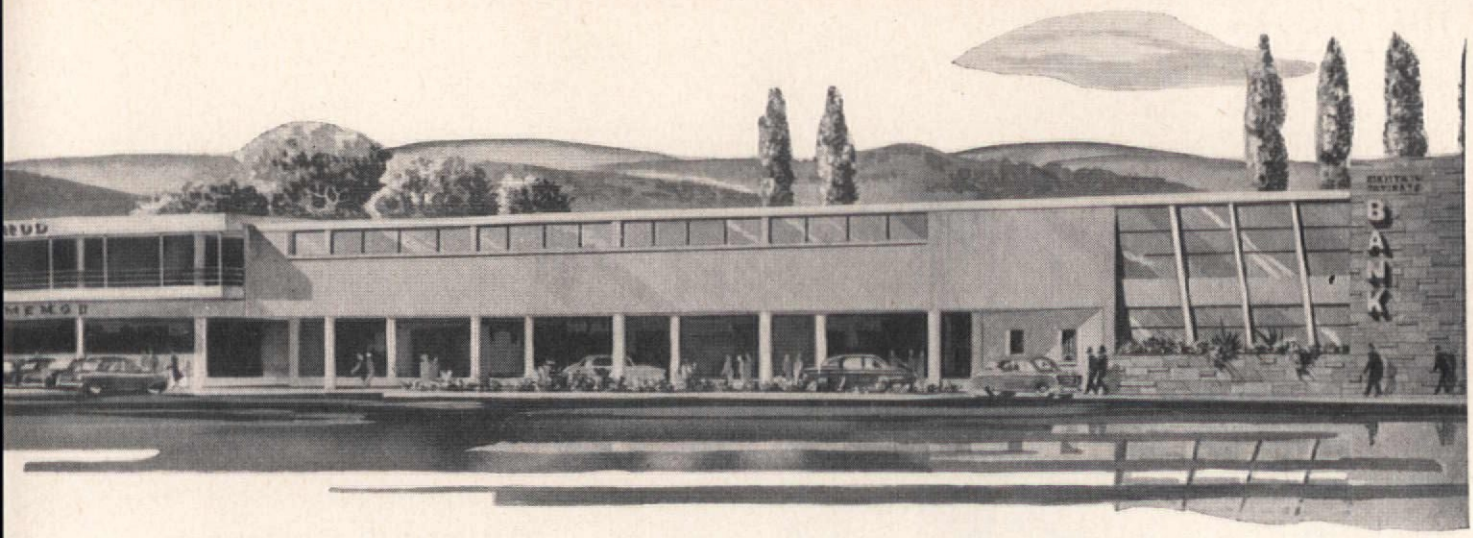
Tri-Rib goes up fast, covers up to 4,000 sq. ft. a day.

Reduces dead load as much as 22 pounds per sq. ft.

Cuts gross weight up to 40%, reduces weight of supporting joists.



Designed in accordance with specifications adopted by A.I.S.I. for light gauge structures, dated January, 1949.



shopping center

—IT'S WHEELING TRI-RIB STEEL ROOF DECK

Wheeling
CORRUGATING COMPANY

...made of longer lasting COP-R-LOY® steel!

The new Lebanon Shops comprise one of the most distinctive shopping centers in the country: ideal location, unique two-level planning, unlimited parking space, and modern design utilizing the latest technological improvements.

Among these is the ultimate in modern roofing — Wheeling Tri-Rib Steel Roof Deck, made of longer lasting Cop-R-Loy steel, the light-gauge steel roof deck that speeds construction, saves valuable structural steel and reduces maintenance costs.

Tri-Rib Steel Roof Deck is only one of the many dependable Wheeling products specified and used by leading architects, engineers, designers and builders.

The complete line of Wheeling building materials includes Steelcrete Reinforcing Mesh, Expanded Metal, Metal Lath and Accessories, Tri-Rib Steel Roof Deck, ExM Angle Frame Partitions, Steelcrete Vault Reinforcing, Cop-R-Loy Galvanized Sheets, and SofTite Galvanized Sheets.

WHEELING CORRUGATING COMPANY • WHEELING, WEST VIRGINIA

BUILDING MATERIAL DIVISION

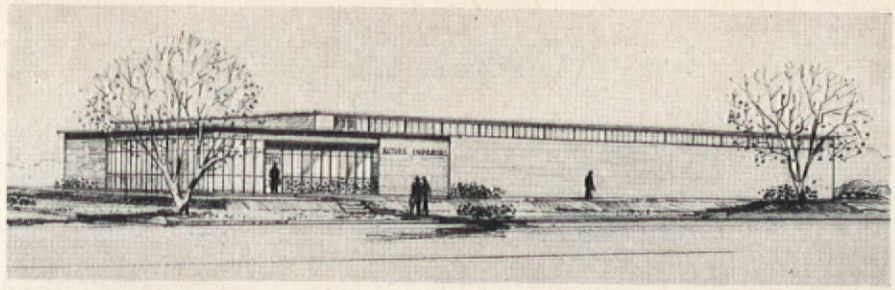
Atlanta Boston Buffalo Chicago Columbus Detroit Houston Kansas City
Louisville Minneapolis New Orleans New York Philadelphia Richmond St. Louis

CANADA

(*Continued from page 26*)

floor will be devoted to the reserve collection. The design also takes into account the possibility of future expansion.

Two other finalists in the competition — Smith, Carter, Katelenikoff and Ian Brown, of Winnipeg, and Vincent Rother of Montreal — each received awards of $5000 for their entries.



Above: 20,000 sq ft warehouse and office designed by Marani & Morris, Toronto architects, for the Anthes-Imperial Co., Ltd., manufacturers of hot-water heating equipment, North York, Ont.

TERRAZZO made non-slip by ALUNDUM AGGREGATE provides walking safety even on stormy days in this lobby of the John Hancock Insurance Company building, Boston.

Announcement—

The continually increasing popularity of terrazzo as a flooring material has resulted in increasing use of non-slip ALUNDUM AGGREGATE to insure walking safety even when floors are wet. Also the large expansion in industrial plant construction has brought widening use for ALUNDUM (C. F.) AGGREGATE to add safety and durability to cement floors.

As a result Norton Company has decided to concentrate all manufacturing facilities on the production of these two types of aggregates, and to discontinue the manufacture of ALUNDUM Ceramic Mosaic Tile and ALUNDUM Stair and Floor Tile.

Production of ALUNDUM Stair and Floor Tile but not mosaics will be continued, however, at the Norton Company plant in Hamilton, Ontario, Canada so architects may continue to specify these ALUNDUM non-slip tiles and obtain them from this source.

Large stocks of both ALUNDUM AGGREGATES for terrazzo floors and for cement floors will be carried in Worcester and in the Norton warehouses in Chicago, Detroit, Cleveland, Philadelphia and Pittsburgh. This means prompt service.

See our Catalog in Sweet's

NORTON COMPANY
Worcester 6, Mass.

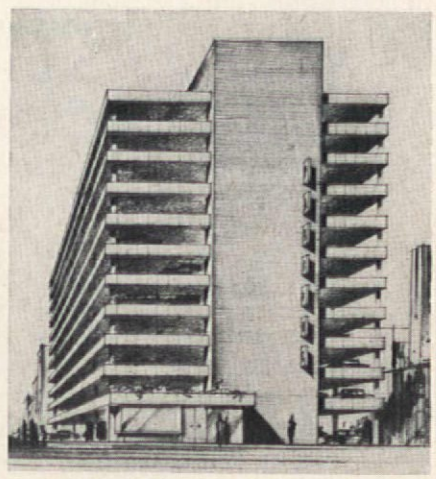
T504

COMPETITION GETS BIG INTERNATIONAL RESPONSE

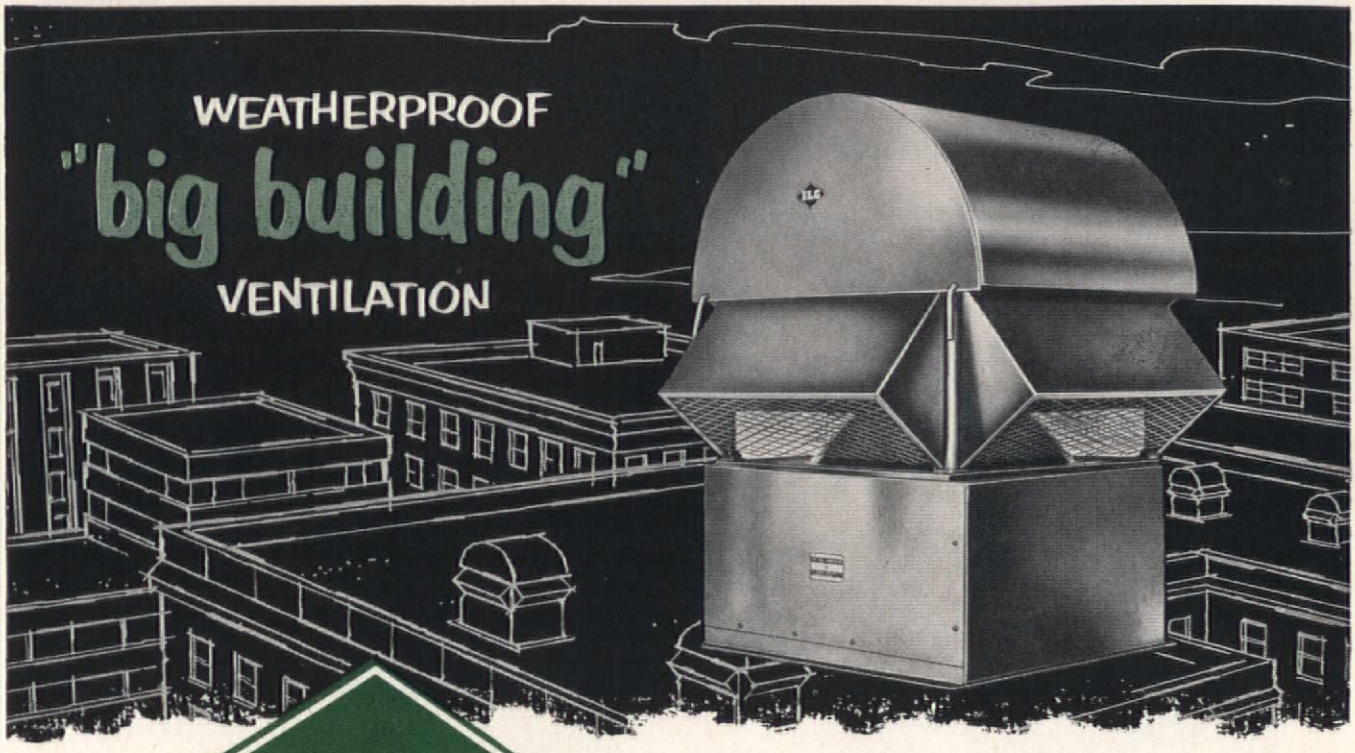
Intention to participate in the $12,000 International Calvert House Competition has been announced by 644 architects. A breakdown of the contestants' home countries shows that the competition is indeed "international" — European entries outnumber Canadians by more than three to one. Responses were received from architects in these nations: Austria, 29; Belgium, 11; Canada, 148; Denmark, 24; Finland, 9; France, 31; Germany, 44; Great Britain, 190; Greece, 4; Holland, 35; Ireland, 14; Italy, 20; Norway, 8; Portugal, 13; Spain, 2; Sweden, 23; and Switzerland, 19. McGill University's School of Architecture is handling the competition.

Members of the jury, who will probably begin selecting the winners about May 20, include, as the European mem-

(*Continued on page 32*)



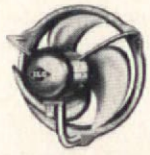
In an attempt to solve the familiar downtown parking problem, the Toronto Parking Authority plans two garages — above the 575-car version; not shown, 400-car model. Blake H. M. Tedman, architect

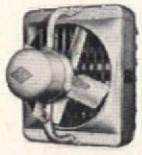


ILG®

POWER ROOF VENTILATORS

Easiest of all to install, wire and service

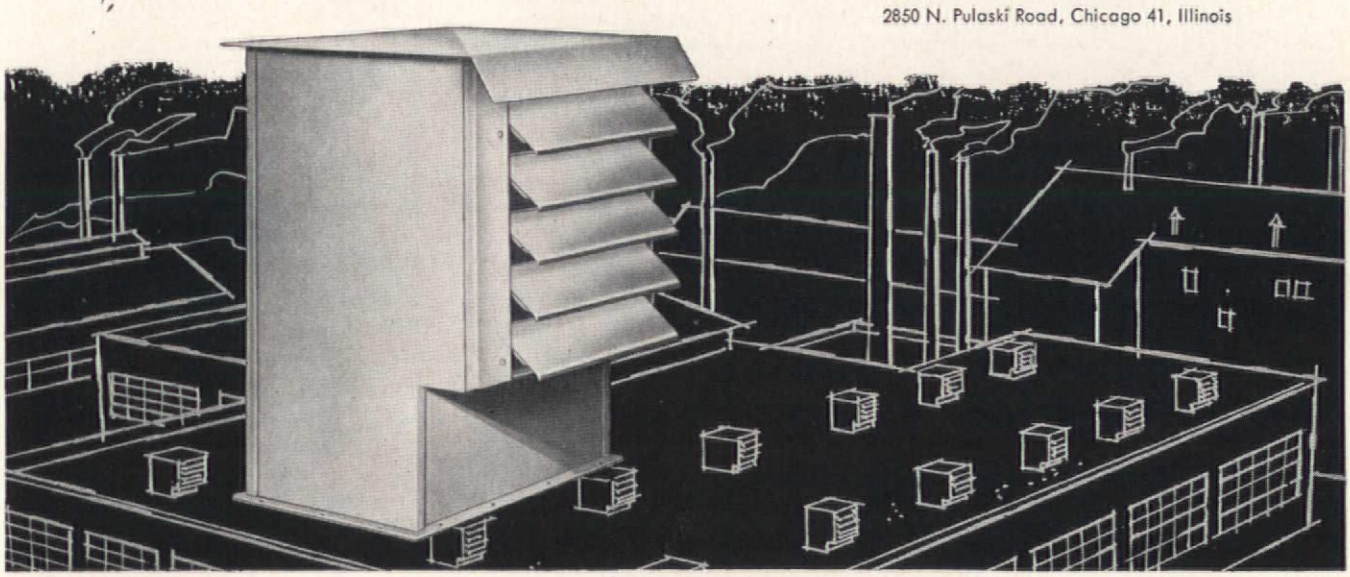

Propeller Fans


Unit Heaters

Centrifugal Fans

Whether you want to provide a pre-determined air volume for positive ventilation of *tall* apartments, office buildings, hotels—or large *sprawling* plant areas, you can always count on ILG Power Roof Ventilators to deliver quick, sure, dependable air exhaust in any weather. The "PRV" unit, illustrated above, is a direct-drive centrifugal fan type ventilator, ideal for exhaust from vertical flues in multi-story buildings or from duct systems. Available in 10 sizes for every need.
The Self-Cooled Motor type ventilator, below, has weatherproof steel penthouse with easy access to fan. Automatic Shutter protects fan and building interior—avoids overloading from wind pressure. Both types are amazingly easy to install, wire and service.
Nothing to get out of order—no lubrication required. Specify ILG—and be sure!

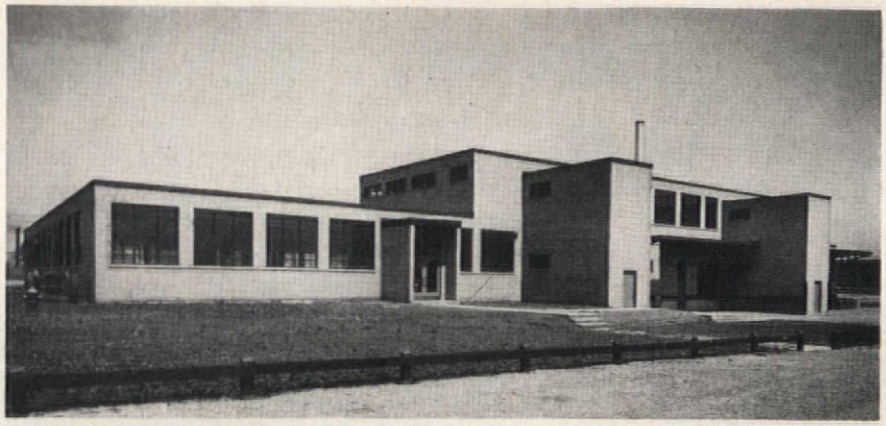
ILG ELECTRIC VENTILATING CO.
2850 N. Pulaski Road, Chicago 41, Illinois



CANADA

(*Continued from page 30*)

ber, Gio Ponti, Italian architect-designer and editor of the architectural magazine *Domus;* Canadian members are Professor Eric Arthur, of the School of Architecture at the University of Toronto, and Humphrey Carver, of Central Mortgage & Housing Corporation.



Recently completed near Toronto was this factory for the Canadian Hanson & Van Winkle Company, Ltd. Shore and Moffat, Toronto, were architects

Clients expect your attention to the slightest detail in blueprints you provide. That's why more and more architects specify **BURSON CLIPS.**

They find, as you will, **BURSON CLIPS** speed up construction, lower installation costs, insure greater fire safety and assure lasting beauty.

The next time your plans call for acoustical tile or other types of gypsum lath suspended ceiling construction be sure you *specify* **BURSON CLIPS.**

WRITE TODAY . . .

Send for further information and installation data on the economical, easy-to-use **BURSON CLIP SYSTEM.**

see our catalog in SWEET'S ARCHITECTURAL FILE or write for copy

• BURSON CLIP SYSTEM • INCORPORATED

BURSON CLIP SYSTEM, INC.

2441-47 SOUTH INDIANA AVENUE • CHICAGO 16, ILLINOIS

VICTORY 2-5115

ALBERTA ARCHITECTS HOLD 43RD ANNUAL CONVENTION

Alberta architects met recently in Edmonton for a two-day meeting of the Alberta Association of Architects. Members elected K. C. Stanley, of Edmonton, to the presidency; he succeeds George W. Lord in the office. Other officers elected were V. F. R. Berton, Calgary, first vice president; G. W. Lord, Edmonton, second vice president; H. L. Bouey, Edmonton, honorary secretary; and G. R. Ascher, Edmonton, honorary treasurer.

It was announced at the meeting that the association had opened an office in Edmonton.

FEBRUARY 1954 CONTRACTS TOP 1953 BY $6 MILLION

Construction contracts awarded in February swung up $6,491,000 over the same month last year, according to the figures of the MacLean Building Reports, which give a total for the month of $91,904,000.

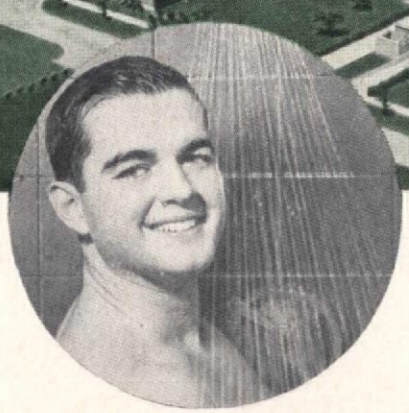
Though not a substantial upsurge, the trade publication points out this increase should reassure those who may have been apprehensive at the drop of $20 million reported for January. This decrease was attributed to the severe winter conditions prevailing across the country. As the weather moderates, suggests MacLean, work-start holdbacks should pick up and balance out the cumulative deficit for the new year.

(*Continued on page 36*)

226 SAFE SHOWERS in The University of Oklahoma

Boys and Girls New Dormitories Are Regulated by

POWERS MIXERS



Above: 4 of the 8 Modern Dormitories All Equipped with—

POWERS Double Safe *Thermostatic* WATER MIXERS

They make showers SAFE against scalding and sudden shots of cold or hot water caused by

PRESSURE *and* TEMPERATURE

fluctuations in water supply lines.

No Shower is Safe Without this Double Protection— Powers thermostatic water mixers *always* hold the shower temperature constant wherever the bather wants it. They are completely automatic. Failure of cold water instantly shuts off shower. Delivery temperature is *thermostatically* limited to 115° F.

Architects and Engineers
SOREY, HILL AND SOREY
Contractor
OLLER PLUMBING & HEATING CO.
All in Oklahoma City

•

Just ONE Shower ACCIDENT may cost many times more than POWERS mixers.

•

10 to 20% Water Saving. No need to get out of shower to readjust it because of fluctuating water temperatures . . . when controlled by a Powers Thermostatic Mixer.

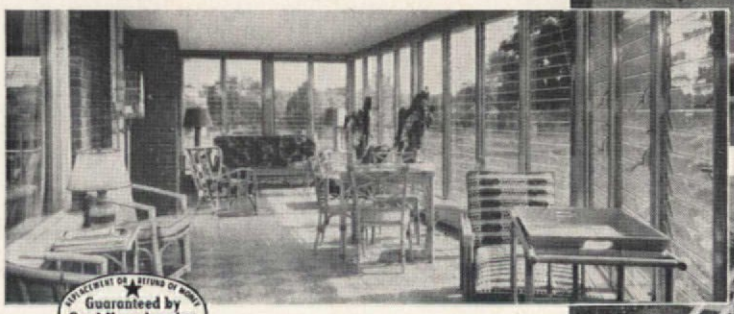
For Utmost Comfort, Safety and Economy Install Powers Mixers • Write for Bulletin 365

(b65)

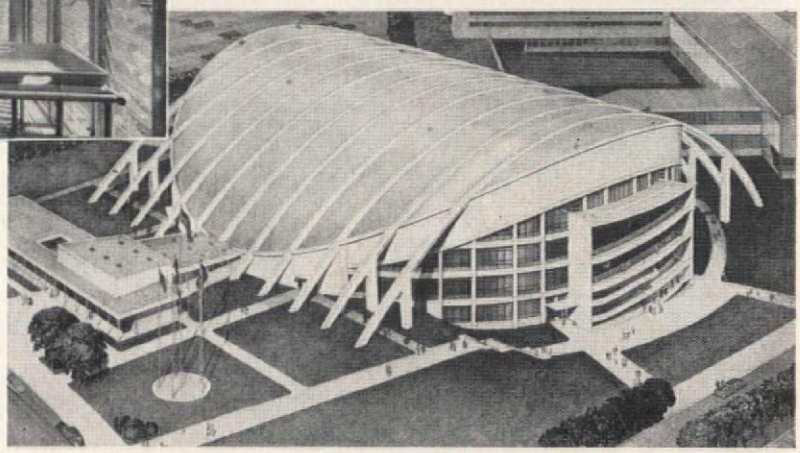
Established in 1891 • THE POWERS REGULATOR COMPANY • SKOKIE, ILL • Offices in Over 50 Cities

Auto-Lok has

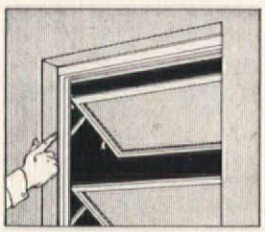
T. C. WHEATON RESEARCH LABORATORY
Millville, New Jersey
Architect; Norman N. Rice
ALABAMA LIVESTOCK COLISEUM
Architects & Engineers; Sherlock, Smith & Adams, Inc., Montgomery, Ala.
CITY HEALTH CENTER, Toledo, Ohio
Architects; Peterson, Hoffman & Grow



Guaranteed by Good Housekeeping

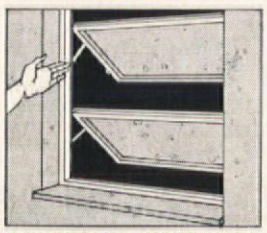


JALOUSIES, TOO! The same world-famous Auto-Lok engineering design and quality standards are applied to Ludman Windo-Tite Jalousies incorporating *all* the features that count most with architects, builders and homeowners.



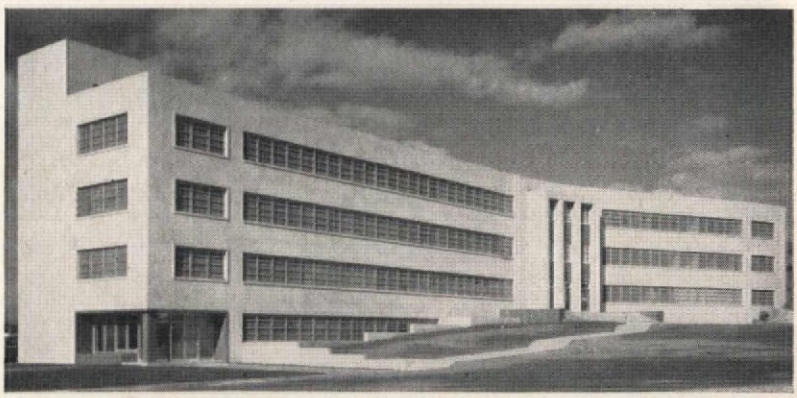
NO WEARING PARTS

Perfectly balanced vents actually aid opening and closing operation . . . eliminate wear at hinge points and strain on the operator mechanism. No maintenance!



CONCEALED HARDWARE

No unsafe, unsightly exposed mechanism as in other windows. Heavy-gauge aluminum cover adds extra strength. No hardware "dust traps" to clean.



LUDMAN LEADS THE WORLD

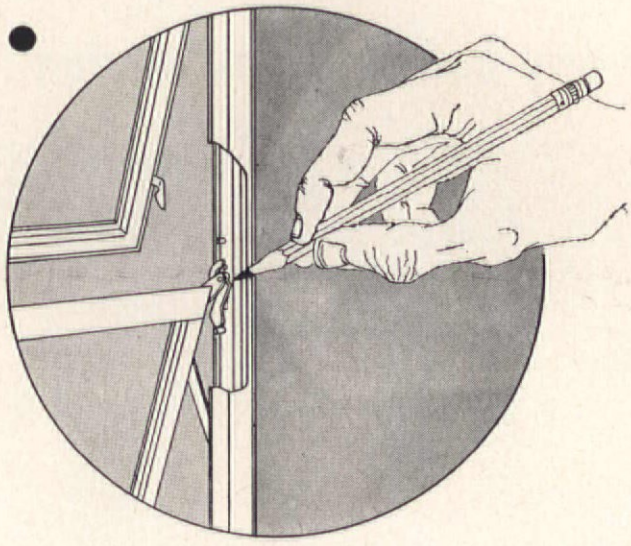
LUDMAN

CORPORATION **NORTH MIAMI, FLORIDA**

Factory Sales Offices: NEW YORK • CHICAGO • WASHINGTON, D. C.
ATLANTA • ST. LOUIS • HOUSTON • SAN FRANCISCO • MIAMI

COMPLETE QUALITY CONTROL from raw metal to finished windows. Produced in the largest plant of its kind in the world.

no "equal"...



To protect your client's best interests . . . to enhance your professional reputation . . . specify AUTO-LOK . . . then make *sure* this superior window is used on the job. Because Auto-Lok *has no "equal"* . . . excels in not one or two but in *all ten* requisites for a perfect window.

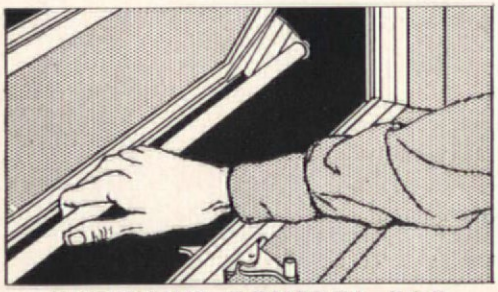
For example, Auto-Lok's exclusive design balances vents so there's no wear on the hardware . . . no strain on the operator mechanism. That's just one way Ludman engineers windows to last the life of the building. No other windows close so *tight* . . . seal so completely . . . to conserve winter heat or summer air conditioning. And so on down the list. You owe it to your client . . . to yourself . . . to investigate Auto-Lok thoroughly. Start by mailing the coupon . . . now!

LUDMAN Auto-lok AUTOMATIC LOCKING PATENTED

ALUMINUM OR WOOD WINDOWS

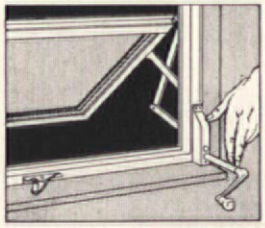
SEALS TIGHTER THAN A REFRIGERATOR

LUDMAN ENGINEERING AND PLANNING SERVICE is available for any job, large or small.



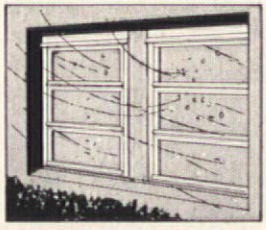
EXCLUSIVE CONTROL BAR

Another example of Ludman's world leadership in window engineering. Simplest, fastest operator ever designed for school, church and hospital windows. Rugged and foolproof.



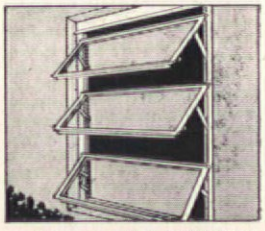
OVER-SILL OPERATOR

Friction-free feathertouch control. Wearproof oil impregnated (bronze-steel) gear, rolled thread worm . . . four-tooth engagement for smooth, effortless operation.



TIGHTEST CLOSING

Only Auto-Lok has the exclusive automatic-locking mechanism which locks vents at all four corners to seal the entire window *tighter* than your refrigerator.



MOST ECONOMICAL

Auto-Lok windows never need adjustment...have no wearing parts...can't rust, rot or corrode and last for the life of the building. No maintenance required . . . ever!

IN WINDOW ENGINEERING

Refer to SWEET'S FILE 16

Member of The Producers' Council, Inc.

SEND COUPON TODAY for illustrated literature showing various styles and sizes, with complete information and name of nearest Auto-Lok Dealer.

LUDMAN CORPORATION Dept. AR-5
North Miami, Florida

Gentlemen: Please send complete information about Auto-Lok Windows. ☐ Wood ☐ Aluminum ☐ Windo-Tite Jalousies

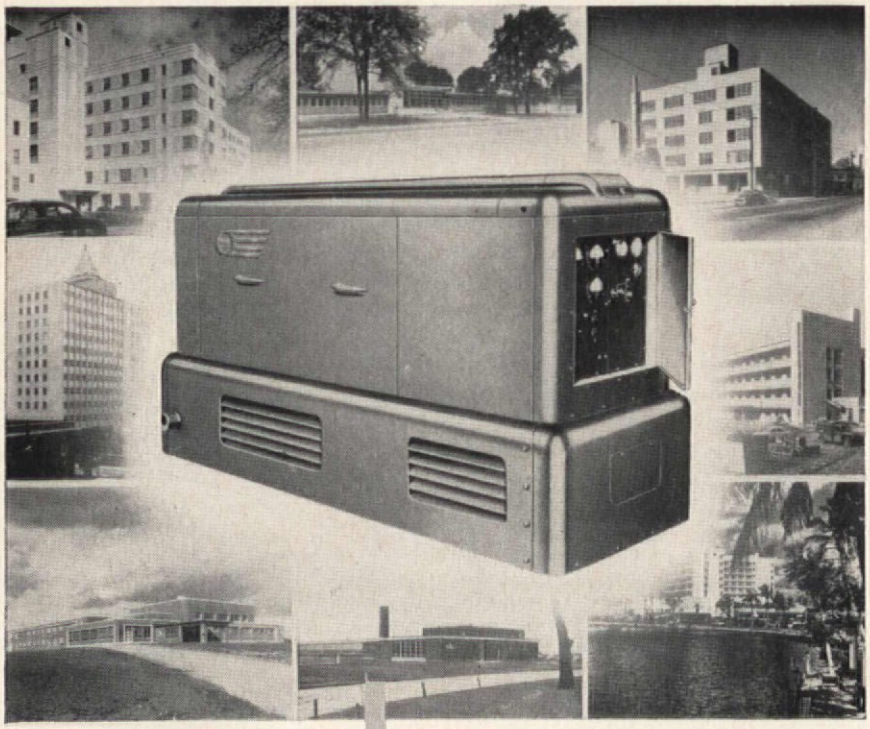
Name _____

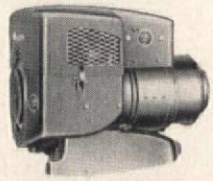
Address _____

City _____ State _____

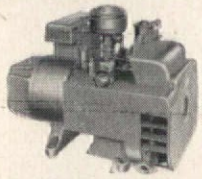
ONAN Standby Electric Power

for any building you design . . .

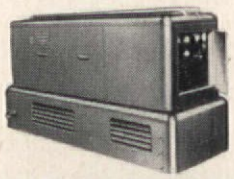




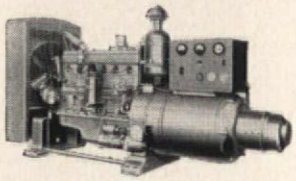
Model 305CK— 3,500 watts A.C.



Model 10CW —10,000 watts A.C.



Model 25HN —25,000 watts A.C.



Model 50KA —50,000 watts A.C.

Even the most modern buildings become unsafe when electric power is interrupted. Lives and property are endangered.

With an Onan Standby System, any interruption of highline electricity automatically starts the emergency electric plant and within seconds all essential equipment is operating normally. In many instances just one power interruption will justify the cost of the standby power installation.

Hospitals, homes, schools, churches, hotels, radio stations, stores, offices . . . all modern buildings need standby protection. Onan builds units to meet any requirement. . . . 1,000 to 50,000 watts, gasoline engine powered.

Write for Architects' Kit SP-1021

Contains specifications for all standby models and information on installation.

D. W. ONAN & SONS INC.

7386 Univ. Ave. S.E., Minneapolis 14, Minnesota

Onan ELECTRIC PLANTS

First . . . in Standby Electric Power

THE RECORD REPORTS

CANADA

(*Continued from page 32*)

The month's increases showed up in three categories — industrial building, up 50 per cent; residential, up 14 per cent; and business building, up about 10 per cent. Engineering construction, however, showed a drop of about 49 per cent from last year's total for the month.

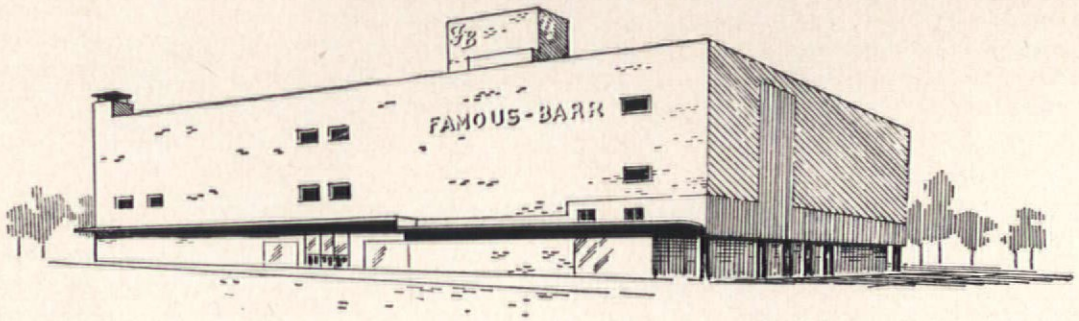
Deploring a tendency in some recent Toronto apartment developments to "scrape" a site clean before construction, Venchiarutti & Venchiarutti designed this apartment development near Toronto with special attention to the natural features of the location. Buildings are planned to follow the contours of the site, and the road is placed to spare as many trees as possible

NEWS NOTES

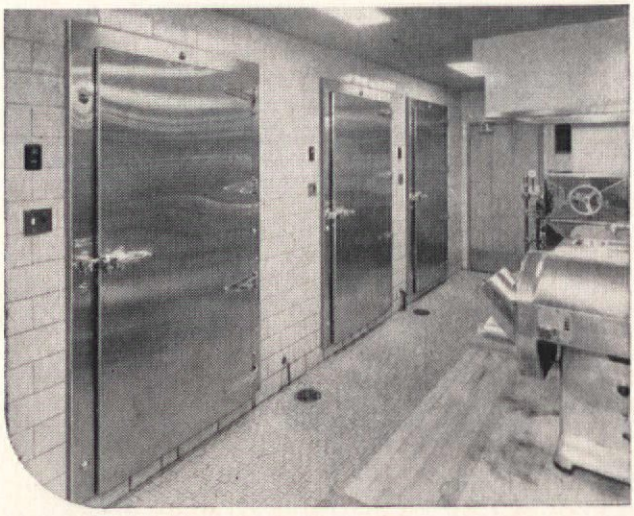
A **Coronation Medal** was awarded by the Queen to George Englesmith, Toronto architect, for his services in the Association of Canadian Industrial Designers, of which he is the founder; Mr. Englesmith is with the firm of John B. Parkin Associates . . . W. F. Holden has been appointed **Commissioner of Buildings** by the Toronto Board of Control; Mr. Holden, who is an architect, was formerly deputy commissioner of buildings . . . **"Italy, Ancient & Modern"** was the title of a feature presented recently to the Toronto Chapter of the Ontario Association of Architects; the presentation consisted of color slides taken by architects on trips abroad, and was prepared by W. M. Greed, a member of the chapter. . . . Toronto's new **$50 million subway** had its first run on March 30; traffic capacity of the four-and-a-quarter-mile tube is 40,000 passengers per hour.

(*More news on page 38*)

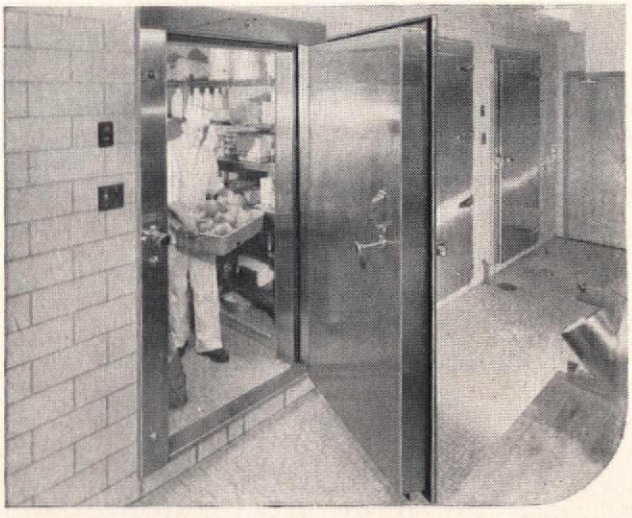
JAMISON Stainless Doors Selected For Store Setting Pattern For Future Building



Famous-Barr's new Southtown store in suburban St. Louis may prove to be a pattern for future store builders. Of an advanced design, the store contains every convenience for shoppers and employees, including a large dining deck, coffee shop, restaurant, employees cafeteria and a kitchen, which is the last word in modern efficiency and sanitation. Jamison stainless steel clad cold storage doors in this kitchen combine "hospital spotlessness" with a maximum of cold-sealing efficiency. Jamison Cold Storage Door Company, Hagerstown, Md., U. S. A.



EFFICIENT DOOR HARDWARE . . . Adjustoflex Hinges combine spring tension regulation and automatic self-adjustment. Wedgetight Fastener and Adjustoflex Hinges assure tight seal of gasket against frame.



DOORS OPEN EASILY . . . The Wedgetight Fastener provides the utmost ease in opening door from either side. Tight door seal can be released with minimum effort.

JAMISON
HAGERSTOWN, MARYLAND, U. S. A.

The Leader For Over 50 Years

By Ernest Mickel

WHITHER HOUSING? FUTURE GOVERNMENT POLICY IN DOUBT AS FHA INVESTIGATION ROCKS NATION

THE FUTURE of government housing programs — and, indeed, of some other programs of government aid to construction — appeared to be in question as an early result of the Eisenhower Administration's decisive expose of Federal Housing Administration "scandals" that bridged the Truman era and its own.

Hearings on the Eisenhower housing legislation by the Senate's Banking Committee were immediately "postponed" for two weeks to allow the Committee's full-scale investigation of FHA irregularities to get under way and it was not hard to find Capitol Hill prophets who saw a clear possibility that the new Administration program might get entirely lost, for this session at least, in the shuffle.

The Administration-sponsored lease-purchase bill, under which public buildings would be constructed by private builders for lease to the government on a long-term purchase arrangement, also ran into trouble in the Senate immediately after the FHA imbroglio began, but in the end it was passed.

The abrupt announcement by Housing and Home Finance Agency Administrator Albert M. Cole that the resignation of FHA Administrator Guy T. O. Hollyday had been "accepted" by the Eisenhower Administration so that "another man" could lead an investigation of "alleged serious irregularities and abuses" in the FHA Small Property Improvement Insurance Program (Title I) and "evidence of illegal or unethical actions" in the financing of privately-owned rental housing projects (Section 608, which expired in 1950) was followed by an investigative flurry notable even in present-day Washington. Within a week, at least six separate investigations were under way.

Norman P. Mason, treasurer of the William P. Proctor Company, Chelmsford, Mass., a widely-known leader in the construction industry, was expected to play a key role in the HHFA investigation as the acting FHA administrator appointed to succeed Mr. Hollyday.

The housing bill embodying the new Eisenhower program had passed the House of Representatives after a bitter fight on public housing provisos without the authority asked by the Administration for construction of 104,000 new units of low-rent public housing in the next four years. By what amounted to a parliamentary accident, the bill did permit the Public Housing Administration to proceed with the 35,000 units already under contract with local authorities.

(*Continued on page 282*)

We invite you to use our
typical specs
(—over 50 of them—proved in field use!)
on BITUMULS® & LAYKOLD®
asphaltic emulsions

Can you use dependable typical specifications on asphaltic type construction?

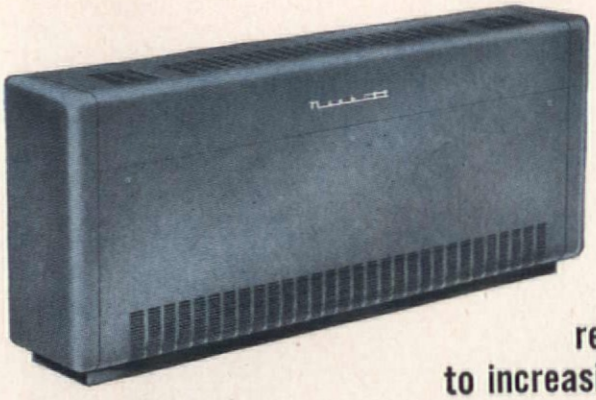
The combined experience of a national field force specializing in projects using Bitumuls and Laykold asphaltic emulsions and all types of asphalt is incorporated in these specifications.

BITUMULS
PLAYGROUNDS
DRIVEWAYS
PARKING AREAS
ROADS, STREETS

LAYKOLD
TENNIS COURTS
FLOORS
INSULATION
WEATHER PROOFING
CONCRETE, MOISTURE RESISTANT

FREE SERVICE
AMERICAN BITUMULS & ASPHALT COMPANY
200 Bush Street • San Francisco 4, California

☐ Please send me your Index of Asphalt specifications, listing over 50 applications in building and paving.
☐ I'd like more data on _____
☐ Please have your man call.
NAME _____
ADDRESS _____
CITY _____ STATE _____



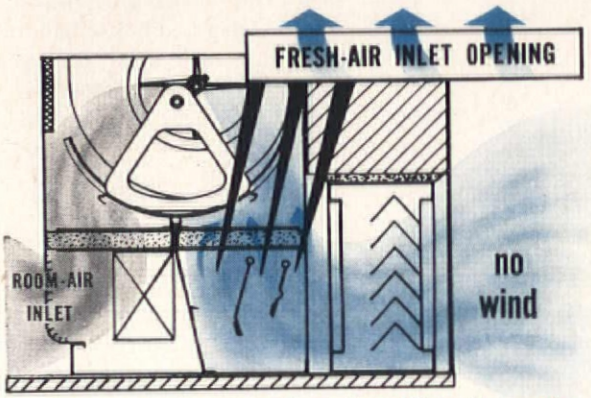
ONLY the NESBITT Unit Ventilator

relates the fresh air inlet area
to increasing outdoor wind velocity and

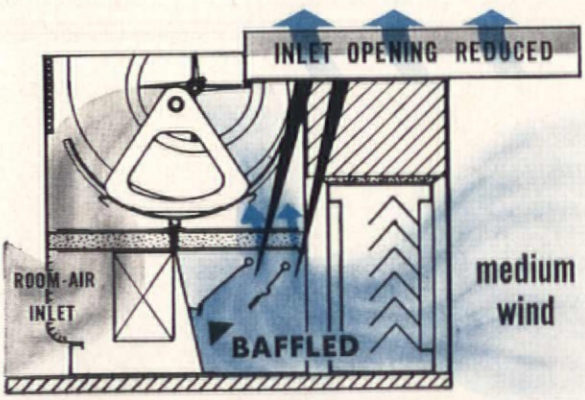
BAFFLES THE WIND

by an ingenious device that

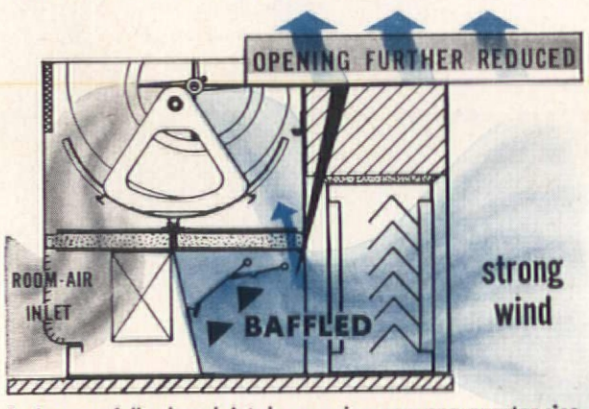
STOPS FLOOR DRAFTS AND SAVES FUEL



Air Volume Stabilizer vanes hang free; full intake opening.



Vanes start to close; intake opening reduced to about half.



Both vanes fully closed; intake opening now one-quarter size.

ALL unit ventilators have a fresh-air inlet opening of a certain size designed to permit a percentage of outdoor air to be drawn into the unit and mixed by the fans with air drawn from the room.

On very windy days more outdoor air than is desired may be blown into the unit, resulting in a waste of the fuel required to heat it. With high winds, the outdoor air volume may tax the capacity of the fans . . . some cold air may "blow through" the room-air inlet and cause discomforting drafts.

The Nesbitt Air Volume Stabilizer solves this problem. Two aluminum vanes, suspended by end pivots below the fresh-air inlet, are operated by the very force of the incoming air to reduce the size of the aperture as required. The desired outdoor air volume is maintained. No fuel is wasted. Blow-through is prevented without affecting the economical recirculation of room air. (See diagrams.)

No other unit ventilator relates the area of the fresh-air inlet to increasing wind velocity . . . no other unit is equipped to achieve this economy.

NESBITT *Syncretizer*

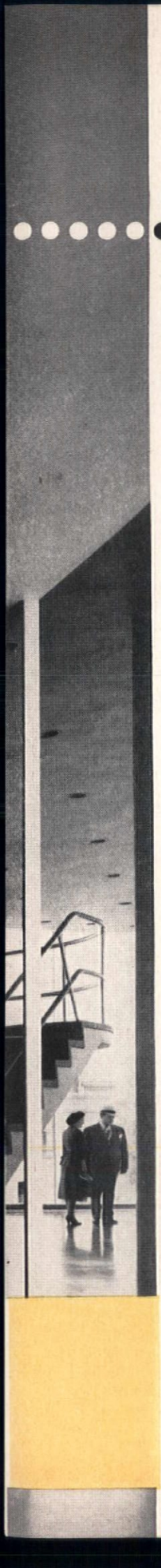
THE UNIT VENTILATOR THAT SETS A NEW STANDARD OF CLASSROOM COMFORT

MADE AND SOLD BY JOHN J. NESBITT, INC. PHILADELPHIA 36, PA. SOLD ALSO BY AMERICAN BLOWER CORPORATION

Design unlimited..

Only plaster's monolithic, free-flowing surface could permit this interesting ceiling and column integration for the American Stove Company in their new office. Acoustical plaster provides the essential sound absorption. Developed in model form by sculptor Isamo Noguchi, under the direction of architect Harris Armstrong, it was executed with gypsum plaster over metal lath.

CAMPBELL LATHING & PLASTERING CO., Plastering Contractor
HEDRICH-BLESSING PHOTO



.....with LATH and plaster

Now Plastering is Better than Ever

This Emblem of Certified Craftsmanship symbolizes higher standards of job performance and responsibility. It has been developed by the National Bureau for Lathing and Plastering, an organization of lathing and plastering contractors and craftsmen.

Certified Craftsmanship means that job performance and responsibility will comply with the Code of Standard Practices for Lathing and Plastering, prepared by the National Bureau and subscribed to by scores of local chapters throughout the country.

This Pledge of Performance is your written and signed assurance that the lathing and plastering on specific jobs will be in compliance with this newly adopted Code. It is a written commitment to work schedules, job cooperation, work of craftsmanship calibre and nationally recognized standards of quality. It is yours for the asking from lathing and plastering contractors adhering to the Code of Standard Practices for Lathing and Plastering.

We suggest a thorough reading of the Code of Standard Practices which appears on the back of every pledge. Ask your lathing and plastering contractor for a copy.

Associated Manufacturers of Lathing and Plastering Materials
520 N. Michigan Avenue, Chicago 11, Illinois

CONSTRUCTION COST INDEXES

Labor and Materials — **U. S. average 1926–1929 = 100**

Presented by Clyde Shute, manager, Statistical and Research Division, F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assocs., Inc.

NEW YORK

Period	Residential		Apts., Hotels Office Bldgs.	Commercial and Factory Bldgs.	
	Brick	Frame	Brick and Concr.	Brick and Concr.	Brick and Steel
1930	127.0	126.7	124.1	128.0	123.6
1935	93.8	91.3	104.7	108.5	105.5
1939	123.5	122.4	130.7	133.4	130.1
1940	126.3	125.1	132.2	135.1	131.4
1946	181.8	182.4	177.2	179.0	174.8
1947	219.3	222.0	207.6	207.5	203.8
1948	250.1	251.6	239.4	242.2	235.6
1949	243.7	240.8	242.8	246.4	240.0
1950	256.2	254.5	249.5	251.5	248.0
1951	273.2	271.3	263.7	265.2	262.2
1952	278.2	274.8	271.9	274.9	271.8
1953	281.3	277.2	281.0	286.0	282.0
Dec. 1953	286.1	280.6	292.6	298.5	295.2
Jan. 1954	285.2	279.5	292.2	298.2	294.8
Feb. 1954	284.1	278.2	291.6	297.7	294.2
	% increase over 1939				
Feb. 1954	130.0	127.3	123.1	123.2	126.1

ATLANTA

Period	Residential		Apts., Hotels Office Bldgs.	Commercial and Factory Bldgs.	
	Brick	Frame	Brick and Concr.	Brick and Concr.	Brick and Steel
1930	82.1	80.9	84.5	86.1	83.6
1935	72.3	67.9	84.0	87.1	85.1
1939	86.3	83.1	95.1	97.4	94.7
1940	91.0	89.0	96.9	98.5	97.5
1946	148.1	149.2	136.8	136.4	135.1
1947	180.4	184.0	158.1	157.1	158.0
1948	199.2	202.5	178.8	178.8	178.8
1949	189.3	189.9	180.6	180.8	177.5
1950	194.3	196.2	185.4	183.7	185.0
1951	212.8	214.6	204.2	202.8	205.0
1952	218.8	221.0	212.8	210.1	214.3
1953	223.3	224.6	221.3	221.8	223.0
Dec. 1953	223.7	224.1	225.7	226.7	226.6
Jan. 1954	221.8	221.9	224.1	225.4	225.2
Feb. 1954	220.0	219.7	223.3	224.8	224.4
	% increase over 1939				
Feb. 1954	154.9	164.4	134.8	130.8	137.0

ST. LOUIS

1930	108.9	108.3	112.4	115.3	111.3
1935	95.1	90.1	104.1	108.3	105.4
1939	110.2	107.0	118.7	119.8	119.0
1940	112.6	110.1	119.3	120.3	119.4
1946	167.1	167.4	159.1	161.1	158.1
1947	202.4	203.8	183.9	184.2	184.0
1948	227.9	231.2	207.7	210.0	208.1
1949	221.4	220.7	212.8	215.7	213.6
1950	232.8	230.7	221.9	225.3	222.8
1951	252.0	248.3	238.5	240.9	239.0
1952	259.1	253.2	249.7	255.0	249.6
1953	263.4	256.4	259.0	267.6	259.2
Dec. 1953	265.8	259.3	263.2	271.9	264.7
Jan. 1954	263.8	257.0	261.5	270.6	263.3
Feb. 1954	262.0	255.8	260.7	270.0	262.5
	% increase over 1939				
Feb. 1954	137.7	139.1	119.6	125.4	120.6

SAN FRANCISCO

1930	90.8	86.8	100.4	104.9	100.4
1935	89.5	84.5	96.4	103.7	99.7
1939	105.6	99.3	117.4	121.9	116.5
1940	106.4	101.2	116.3	120.1	115.5
1946	159.7	157.5	157.9	159.3	160.0
1947	193.1	191.6	183.7	186.8	186.9
1948	218.9	216.6	208.3	214.7	211.1
1949	213.0	207.1	214.0	219.8	216.1
1950	227.0	223.1	222.4	224.5	222.6
1951	245.2	240.4	239.6	243.1	243.1
1952	250.2	245.0	245.6	248.7	249.6
1953	255.2	257.2	256.6	261.6	259.7
Dec. 1953	258.6	251.0	264.4	271.2	266.5
Jan. 1954	255.8	247.8	262.3	269.6	264.7
Feb. 1954	254.0	245.6	261.5	269.0	263.9
	% increase over 1939				
Feb. 1954	140.5	147.3	122.7	120.7	126.5

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926–29 for that particular type — considered 100.

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110
index for city B = 95

(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926–29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

These index numbers will appear regularly on this page.

NEW Pella® FOLDING DOORS IN Natural WOOD

HOW CAN YOU USE Pella Wood Folding Doors to provide privacy and maximum utility of space? Specify as folding partitions between living-bedroom-den combinations. Use them between living-dining and kitchen-dining areas. Use them in regular door openings wherever inside closures are required.

Install across entire closet fronts. Create double-purpose rooms in schools, churches, hospitals, clubs and other buildings. Pella Doors fold accordion-like against door jambs or walls. Every inch of floor and wall space can be used.

Pella *natural wood* doors are solidly built. Laminated construction assures straight, true panels. Color and texture blend with furniture and woodwork. Stock doors in pine, finished or unfinished. Custom doors in natural pine, oak, mahogany or birch, clear varnished or unfinished. Packaged, complete with all hardware and concealing track mould. See Pella catalog in Sweet's Architectural File or mail coupon below.

MAKERS OF Pella®

WOOD CASEMENTS • MULTI-PURPOSE WINDOWS

ROLSCREENS • VENETIAN BLINDS

Clip and Mail Today

ROLSCREEN COMPANY
Dept. F-54, Pella, Iowa

GENTLEMEN: Please send FREE literature on Pella Wood Folding Doors.

NAME

ADDRESS

CITY & ZONE STATE

Here's how they sell houses

TIP FOR YOU FROM:

Housing Development Corporation

"We're now building 600 houses in our new development, and each of them will feature a worksaving General Electric Kitchen—just as our other houses in past years have. No doubt about it, G-E Kitchens help to sell houses. To date, we have sold 2000 houses with G-E Kitchens."

At right: Messrs. Anthony Campitelli and Nathan Brisker →

"Sold 2000 Houses with G-E Kitchens"

"In order to keep our sales records high for 1954, we naturally try to give people what they want, yet keep the final price tag realistic . . . at a figure prospects are willing to pay.

"We're glad to say that our '54 houses are newer and bigger. The General Electric Kitchen in our 'Riviera' house, for example, includes: Refrigerator, Under-Counter Dishwasher, Speed-Cooking Range, Automatic Disposall,® ample counter and cabinet space, and floor to ceiling picture window.

"Again this year, we believe we will have an extraordinary sales volume because we are offering extraordinary values!"

★ ★ ★

1079th PURCHASER, Mrs. James V. Bryant of the Housing Development Corporation's largest model "Riviera" Rambler says: "My husband and I selected this house because we felt it is an extraordinary value, has a good location and an excellent design. The conveniences of this house are truly emphasized in the de luxe, custom-type General Electric Kitchen, which means better living in any house."

←

Whether you plan to build a few houses or hundreds, get the facts from General Electric. Find out how we can help you (in so many ways) to sell houses faster in today's market. Call your General Electric major appliance distributor today. Home Bureau, General Electric Company, Appliance Park, Louisville 1, Kentucky.

(year after year) in Washington, D.C.

TIP FOR YOU FROM:

M. T. Broyhill & Sons

"We're now building 600 houses in our new development, and each of them will feature a worksaving General Electric Kitchen—just as our other houses in past years have. No doubt about it, G-E Kitchens help to sell houses. To date, we have sold 1500 houses with G-E Kitchens."

At right: Messrs. M. T. Broyhill, Jr.; Mr. M. T. Broyhill, Sr. →

"Sold 1500 Houses with G-E Kitchens"

"Our houses sell in the price range of $13,950 to $35,000.

"Regardless of price class, however, we find that most women want all-electric, timesaving appliances in their new houses today—and I don't blame them.

"Above all, they express an overwhelming preference for General Electric appliances. Our custom-type General Electric Kitchen is one of our most potent sales features."

★ ★ ★

MRS. L. V. DRAVENTSADT in the G-E Kitchen of her new home. Mrs. Draventsadt is mighty pleased with her General Electric appliances for she knows how efficient and dependable they are, having just moved from a previous home, built by Mr. Broyhill, which also was General Electric equipped.

GENERAL ELECTRIC

"JUST GIVE ME THE FACTS, MA'AM"

(an editorial note)

WE'RE in a house-building boom, and a lot of house books have been published in the past few years. Almost all of these, and shelter magazines too, are aimed at selling contemporary design to the house-buying public — which is larger than ever, or we wouldn't be having the boom or the books. These books do a pretty thorough job of presenting the FACTS: cost per square foot; the many technical innovations created to "save" the housewife; the advantages of convertible rooms; new cost-saving construction methods. These are techniques which we recognize as essential today; nobody really wants to return to the black iron kitchen sink or the 1910 heating system. These facts are also thrust at the public by radio and TV home shows, ladies' home magazines, home furnishing shows and daily newspapers; the completely modern house just isn't traditional. The facts are generally accepted, but even in sum they seldom give prospective home owners the reassurance they need. The shutters on a Cape Cod house, divorced from modern function, retain a meaning for many people; for many they are part of the alphabet of grace, gentility and a connection with tradition. The glassed-in house, designed on a basis of formula and utility, is strange. The home buyer wants to appreciate it — often the very vigor of his defense of an uncertain choice betrays this; but what have architects contributed to help him transfer his understanding and affection from the old to the new? This need for identity with a tradition is not easy to satisfy honestly. The suburban movement in this country, now at a peak, is at least as old as Jefferson's belief in the desirability of every family having its own house on a plot of ground on the fringe of the city. Our society has forced its growth, though we may now question the rightness of either agrarian austerity or quaintness as its characteristic domestic expression: the palatial Greek Revival, the gingerbreaded Queen Anne, the garden cottages of Andrew Jackson Downing. These are hardly compatible with the American ingenuity that also produced the central-chimneyed New England house plan or the Louisiana dog-trot house, the balloon frame or even the simple clapboard.

Of course the home buyer needs books on today's techniques. Perhaps even more, though, he needs — and he wants, judging by personal and reported experience — books that will help him understand and like more than the mere techniques of the modern house. He wants to feel at home in it.

Quality Budget Houses. By Katherine Morrow Ford and Thomas H. Creighton. Reinhold Publishing Corp. (New York, N. Y.) 1954. 8½ by 10½ in., 221 pp, illus. $4.95.

Practical Houses for Contemporary Living. By Jean and Don Graf. F. W. Dodge Corp. (New York, N. Y.) 1953. 8½ by 10½ in., 165 pp, illus. $6.95.

Homes of the Brave. By T. H. Robsjohn-Gibbings, drawings by Mary Petty. Alfred A. Knopf, publishers (New York, N. Y.) 1954. 6¼ by 9½ in., 113 pp, illus. $3.50.

REVIEWED BY
JOHN HANCOCK CALLENDER, A.I.A.

The latest additions to the current crop of books about houses are all aimed at the public rather than the profession. But architects practising in this field usually find it advisable to keep abreast of their clients' reading, and should add these three books to their list. The first two books are aimed at those people who are intending to build houses. Both do a workmanlike job of presenting many examples of reasonably well designed houses, salted with brief but sage advice to the prospective home builder. These books are practical, impersonal and noncritical, and they perform a useful service to the public. The third book has no such utilitarian purpose. It is intensely personal and unhesitatingly critical and is intended to be highly entertaining and incidentally instructive.

QUALITY BUDGET HOUSES "is a book about the things you have to know — and the things you have to do — to get a good . . . house on a limited budget." The text includes chapters on the Site, Use of Space, Expansion, Structure, Materials and Equipment, Ready Built Houses, Cooperatives, the Owner as a Builder, the Architect as a Builder. The text runs continuously through the book on the right hand pages. The examples are uniformly presented on the left hand pages and usually carry over to the facing page. Information about the houses is far more complete than is customary in books of this type. This data is organized under the following headings: Cost Facts (cost, date, area, cost per square foot); Materials; Plan Facts (the owner's requirements, nature of site, etc. described in detail); Economies; Budget Suggestions (possible further economies).

The authors are commended for their courage in tackling the troublesome cost problem and for the care they have taken to do it as fairly as humanly possible. They carefully explain what is included and what is not included. Cost figures are always accompanied by the date, and conversion factors are given for correcting to 1954 costs. The reader is also told how to correct (in a very rough way) for regional cost differences. The area of basements, porches, carports, etc. is given separately from that of the main house and an explanation is made of how the cost per square foot is derived.

The architectural quality of the houses is remarkably high, considering the $30,000 cost limit. This reviewer particularly liked the examples by Henry Hill, Richard Neutra, Hugh Stubbins, Crombie Taylor and Gyo Obata, Robert Rosenberg and Craig Ellwood. Some of the houses have been published before, but not so many as to make the book seem warmed over. The book is, incidentally, a remarkable bargain, offering 100 houses at five cents per house, if you want to look at it that way.

PRACTICAL HOUSES FOR CONTEMPORARY LIVING offers fewer houses (40) but presents them much more fully. Each house gets an average of four pages on which occur some eight photo-

(Continued on page 48)

INSULATED METAL WALLS

for INDUSTRIAL and COMMERCIAL BUILDINGS

ALUMINUM, STAINLESS or GALVANIZED STEEL

FLUSH, RIBBED, or FLUTED
Over-all "U" Factor of Various Types is Equivalent to or Better than Conventional 16" Masonry Wall

Here is another excellent example where Stainless Steel Metal Walls have been employed to good advantage in dressing up a building which, because of its functional characteristics, would otherwise have been rather prosaic in appearance. The architects have achieved in this structure a result in modern design which has attracted much interest and many enthusiastic comments. The advantages of Metal Walls, however, are not confined to appearance and design effects obtainable . . . important building economies are realized through lower material cost, lower labor cost, and the cumulative savings resulting from reduced construction time . . . buildings can be quickly enclosed with Insulated Metal Walls—even under extreme low temperature conditions which would preclude masonry construction. Other important factors to be considered are the light weight of these modern curtain walls and the maintenance-free permanence of Stainless Steel or Aluminum exterior surfaces. Mahon Insulated Metal Walls are available in three exterior patterns . . . the Mahon "Field Constructed" Fluted or Ribbed Wall can be erected up to sixty feet in height without a horizontal joint—a feature of Mahon Walls which is particularly desirable in auditoriums, powerhouses and other types of buildings where high expanses of unbroken wall surface are common. See Sweet's Files for complete information or write for Catalog No. B-54-B.

THE R. C. MAHON COMPANY

Detroit 34, Mich. • Chicago 4, Ill. • Representatives in All Principal Cities

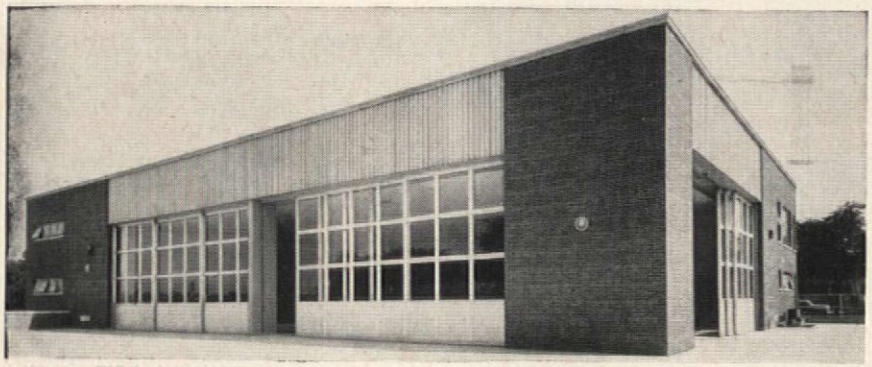
Manufacturers of Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions and Permanent Concrete Floor Forms; Rolling Steel Doors, Grilles and Underwriters' Labeled Rolling Steel Doors and Fire Shutters.

New Greyhound Terminal, Chicago, Illinois. 17,200 Sq. Ft. of Mahon Stainless Steel Metal Walls were employed in exterior surfaces. Skidmore, Owings & Merrill, Architects. John W. Harris & Associates, General Contractors.

MAHON

PATTON MEMORIAL POOL

Outdoor Use In Summer
Indoor Use In Winter



Architect—Giffels & Vallet, Inc.
L. Rosetti—Associated Engineer & Architect
Detroit, Michigan

General Contractor—
The Krieghoff Company
Detroit, Michigan

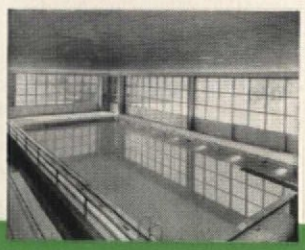
. . . Swimming pool has unequalled versatility with Byrne Aluminum Sliding Doors!

The General George S. Patton Memorial Pool located at Patton Memorial Park in Detroit, Michigan was conceived with the thought of constant use 12 months per year.

It was desired that the pool would approximate, as nearly as possible, an outdoor pool during summer time use . . . yet be weather tight and condensation free, for operation during the winter.

The architects, working with the Byrne engineering staff, developed the idea of using large sliding doors which nest in pockets to permit wide, unobstructed openings on two sides of the pool for summer swimming freedom. Aluminum, as a building material, was selected because of its non-corrosive qualities. Two sets of doors with heating space between them were constructed and these provide weather-tight condensation-free, winter operation. Bottom wheels, rolling on tracks, and freely running head guide rollers assure smooth, easy operation.

The pool was dedicated by General Patton's widow, Mrs. George S. Patton. It has been in constant use for several years, averaging over 90,000 patrons per year.



Unique in its field, it is felt that this new conception of an outdoor, indoor swimming pool will serve as a model for similar installations throughout the country.

For information regarding Byrne doors and facilities you may consult Sweet's Catalog or write direct for our brochure.

BYRNE doors, inc.

1421 East 8 Mile Road, Ferndale, Detroit 20, Mich.

101 Park Ave., New York 17, N.Y.

Dept. r-4

Cafritz Bldg., Washington 6, D.C.

REQUIRED READING

(*Continued from page 46*)

graphs and a plan. Photographs are of good size and show to advantage on the coated paper. Informative captions tell most of the story.

The book is organized into six sections. Each section is headed by a nugget of wisdom from the authors and a bright drawing by Lowell Hess. A brief, well-written introduction is the only formal text. It includes remarkably apt quotations from Shakespeare and the Bible warning the man who intends to build to be sure to keep within his budget.

It is apparent from the above that this book, without placing any special emphasis on low cost, covers very much the same field as QUALITY BUDGET HOUSES. It is remarkable therefore that only one house appears in both books. Many architects' names appear in both books. Nevertheless the general architectural level is not quite as high and the stylistic center is definitely to the right of the Ford-Creighton line. PRACTICAL HOUSES includes Royal Barry Wills' own house, complete with old ship's knees and barn sash that have been chewed by a horse! It is only fair to note that this is the only aberration of this type in the book. At the other end of the scale are houses by Kirk, The Architect's Collaborative, Matsumato and Keck.

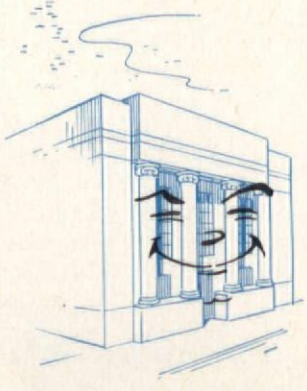
The editors of PRACTICAL HOUSES are commended for including full index service: by architect, by owner, by geographical region and by photographer; addresses are given for both architects and photographers. This in itself is rare enough, but another and unique type of index has been supplied. The "Concordance," as it is called, is an index of building details which lists everything from balconies and bars to window treatments and yards.

Both BUDGET HOUSES and PRACTICAL HOUSES were written by architects and published by architectural publishing houses. Yet the word "beauty" does not appear in either book. If architects themselves have forgotten or are ashamed to say, that beauty is their prime stock in trade, who can blame the public for not knowing it? One would gather from reading these books that an architect is an ingenious cost-cutter or a cleaver tailor who makes houses fit families. No where, even in-

(*Continued on page 344*)

Home Savings & Loan Association, Dayton, Ohio; Architects—Geyer & Neuffer, Dayton; Formica Fixtures—Backus Brothers, Cincinnati

How to Make a Bank Look Friendly



Modern banks are well aware that the impersonal look of cold dignity, traditional for so many years, is not consistent with good banking today.

A setting of beautiful Formica and bright colors tastefully used is more appropriate in this modern era of financial friendliness.

Formica contributes not only warmth and beauty to the decor, but also provides the ease of cleaning, the stout resistance to hard use, and long life expectancy so necessary to high traffic commercial locations.

It's true that Formica is now a part of many millions of American homes, but we never intend to let you forget that Formica was first and foremost a surfacing for commercial and institutional use.

See Sweets $\frac{13a}{FO}$ for additional Formica facts.

Do you have samples of the new Raymond Loewy Associates designed Sunrise Color Line? It includes new patterns and 18 solid colors. Write:

FORMICA
4632 Spring Grove Avenue
Cincinnati 32, Ohio

In Canada: Arnold Banfield & Co., Ltd.
Oakville, Ontario

DEMAND THIS CERTIFICATION

This mark certifies genuine
REMOVE WITH SOAP AND WATER

Beauty Bonded
FORMICA
Reg. U. S. Pat. Off.
Guaranteed by Good Housekeeping
Pays in Performance

Seeing is believing. If this wash-off identification is not on the product, it's not FORMICA.

Prepare Now for the Profitable Jobs...

with the expanded line of

Curtis

AIR CONDITIONING AND REFRIGERATION EQUIPMENT

This complete line of CURTIS equipment assures highest possible efficiency, dependability and quality... at a price that is profitable for you.

Not only will you be equipped to handle any installation but you will be selling equipment that is accepted the world over, and that is proven by 100 years of successful manufacturing experience.

To help you sell more CURTIS Air Conditioning and Refrigeration equipment, it is nationally advertised in *Saturday Evening Post, Time* and *Newsweek*, plus many other national magazines.

For immediate information on how to make your operation more profitable, mail this coupon for details of how you may secure a direct factory franchise:

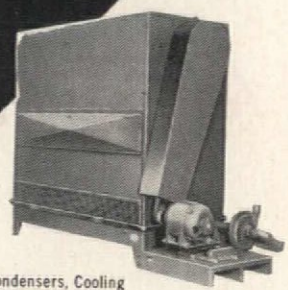
CURTIS REFRIGERATING MACHINE DIVISION
of Curtis Manufacturing Company
1986 Kienlen Avenue, St. Louis 20, Missouri
I am interested in direct factory franchise. Send complete details.

Company Name.....

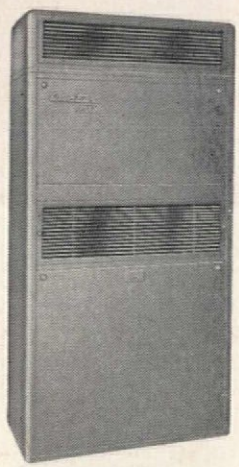
Street.....

City.....Zone....State.....

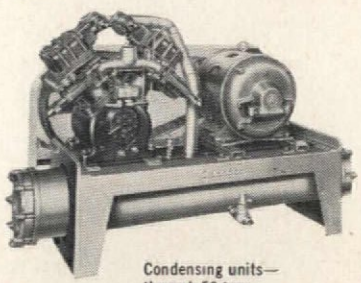
Signed.....



Evaporative Condensers, Cooling Towers and Air Handling units to match

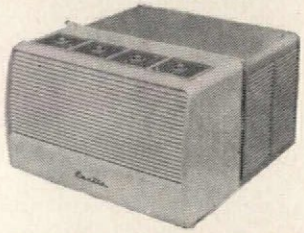


Packaged Air Conditioners—2, 3, 5, 7½, 10 and 15 tons



Condensing units—through 50 tons

Residential cooling and heating units



New 1954 Curtis Room Air Conditioner in three popular sizes.

CURTIS REFRIGERATING MACHINE DIVISION
of Curtis Manufacturing Company
1986 Kienlen Ave. — St. Louis 20, Mo.

The answer to most of your questions about stainless steels are right at your finger tips, when you use Crucible's unique new Stainless Steel Selector.

Want to know the machinability characteristics of a stainless grade? Resistance to corrosion or scaling? Physical or mechanical properties? You can get the answers to these and other questions simply by setting the arrow on the Selector slide at the proper window. It's just as quick and easy as that.

And almost as fast as you get the answer, you can get the steel you need. For many of the REZISTAL stainless steels shown on the Selector are carried in stock in Crucible warehouses conveniently located throughout the country.

To get your free copy just fill in and mail the coupon. Better do it now.

HOW THE SELECTOR WORKS:

Start with the problem. For example, resistance to corrosion in contact with copper sulfate. Just set the slide at the proper index number shown on the Selector (in this case on the back), and you have the answer in a second – grades 302 and 316 are fully resistant to this form of attack.

Crucible Steel Company of America
Dept. RA, Henry W. Oliver Building
Pittsburgh, Pa.

Name_____

Company_____ Title_____

Address_____ City_____ State_____

CRUCIBLE first name in special purpose steels

54 years of Fine steelmaking

STAINLESS STEELS

CRUCIBLE STEEL COMPANY OF AMERICA, GENERAL SALES OFFICES, OLIVER BUILDING, PITTSBURGH, PA.

REX HIGH SPEED • TOOL • REZISTAL STAINLESS • MAX-EL • ALLOY • SPECIAL PURPOSE STEELS

why leading architects specify CRA redwood...

Natural beauty—
uniform quality—
dependable
performance...
these are the
reasons grade-marked,
trade-marked
CRA Redwood is
so often specified
for architectural millwork.
When you specify
Redwood, specify by
CRA grade...and
be sure.

CALIFORNIA **REDWOOD**
ASSOCIATION

576 SACRAMENTO STREET
SAN FRANCISCO 11

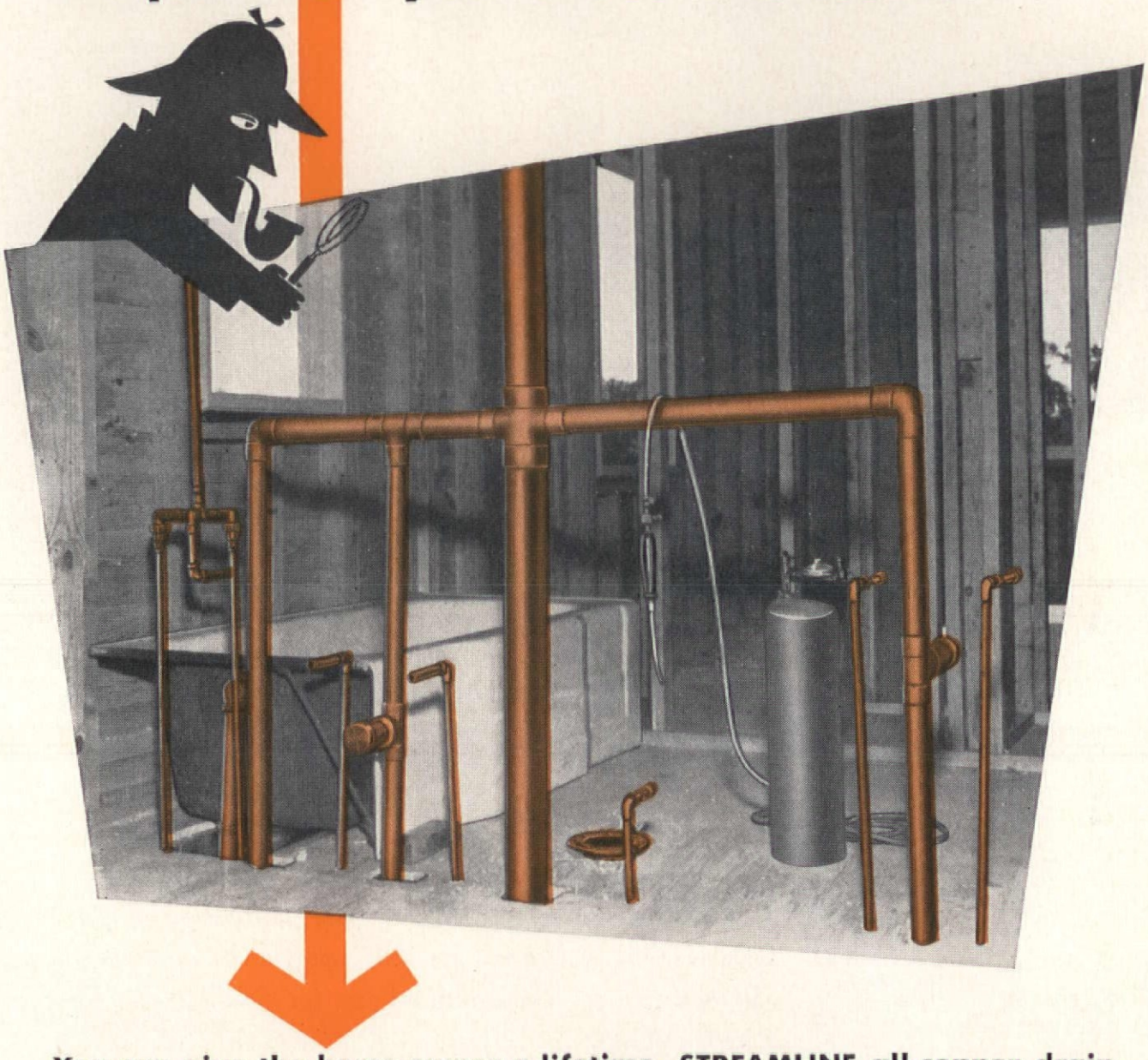
Medical office building
San Francisco

Ward Thomas, Architect

CRA CERTIFIED DRY 12 CLR-RWD

CRA members: Willits Redwood Products Co • Wolf Creek Timber Co., Inc • Arcata Redwood Co • Coastal Plywood & Timber Co • Eureka Redwood Lumber Co • Hammond Lumber Co • Holmes Eureka Lumber Co • Hulbert & Muffly Lumber Mill • M & M Wood Working Co Northern Redwood Lumber Co • The Pacific Coast Company • The Pacific Lumber Co • Rockport Redwood Co • Simpson Logging Co • Union Lumber Co • Warm Springs Redwood Co

we just want you to GET THE FACTS!



You can give the home owner a lifetime, STREAMLINE all-copper drainage installation for less than 1% of the total price of the entire house.

It's no mystery why more and more houses are being built using STREAMLINE all-copper soil, waste and vent lines.

- Copper is not expensive. The typical kitchen-bath installation shown above costs only $4.55 more, including labor, compared to a rustable, ferrous system.
- Construction costs are reduced since the 3" copper stack will fit in a standard 2" x 4" partition.
- Pre-fabricated sections can be assembled at the shop for delivery to the job.
- STREAMLINE all-copper plumbing lasts more than a lifetime — helps sell homes.

There's the evidence — and you can reach your own verdict on the case by writing us today about the comparative costs and advantages of STREAMLINE all-copper drainage plumbing.

Write today for our latest catalog of Streamline Plumbing and Heating Products.

MUELLER BRASS CO. STREAMLINE PRODUCTS

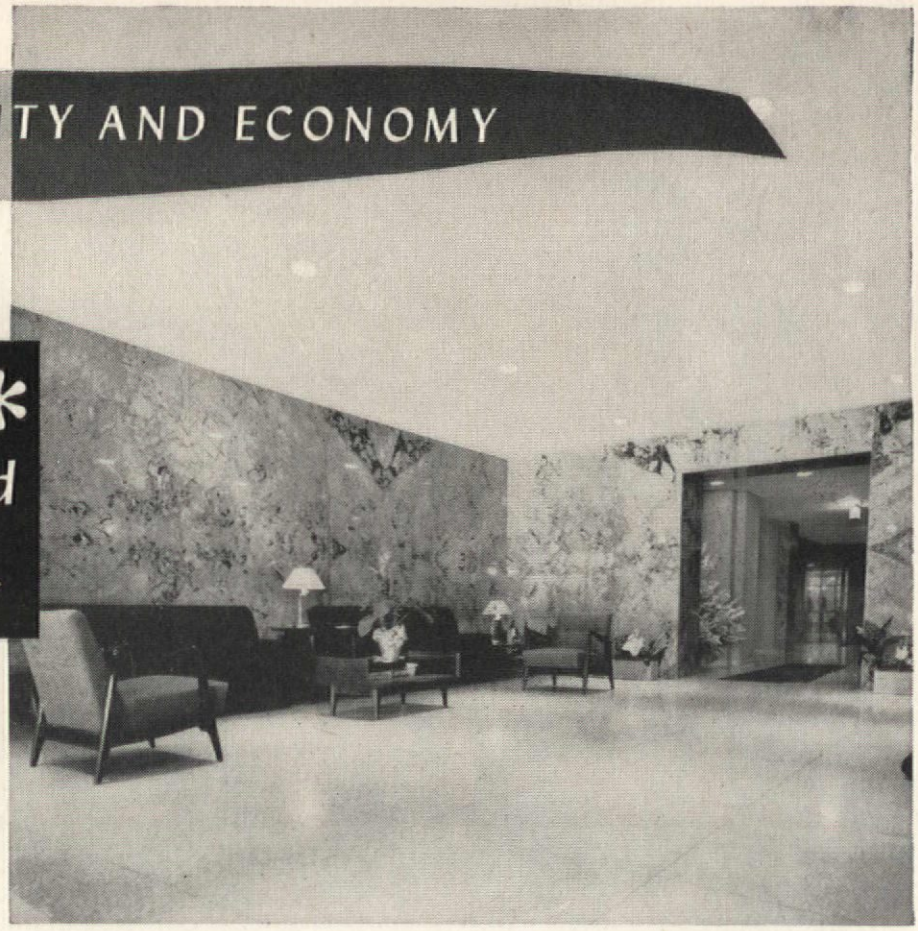
MUELLER BRASS CO. PORT HURON 5, MICHIGAN

123-A

NEW BEAUTY AND ECONOMY

at
RESURRECTION HOSPITAL
Chicago, Illinois

when Specialists* plan FLOORS and Floor Treatments.



HILLYARD Treatment Products Specified

For terrazzo—
White Onex-Seal
Super Shine-All
Super Hil-Tone

For rubber and asphalt tile—
Hil-Tex
Super Hil-Brite Wax
Hil-Sweep

* Schmidt, Garden and Erikson, Architects. E. W. Rupinski, Associate Architect. Rt. Rev. Monsignor John W. Barrett, Archdiocesan Director of Catholic Hospitals, Consultant.

Rendering a floor treatment planning service to architects, hospital consultants and administrators on a nationwide scale, has become a respected part of Hillyard's assistance. By submitting valuable information on new products, improved treating methods, help on specific floor problems, Hillyard provides specifications that assure more beautiful lifetime floors with a minimum of labor costs.

Hillyard's field staff of 120 trained floor experts (Hillyard "Maintaineers") © are stationed in key cities coast to coast. These men are "on your staff not your payroll" for statistical advice on costs, full product facts, "job captain" help on floors without charge to architect or hospital management.

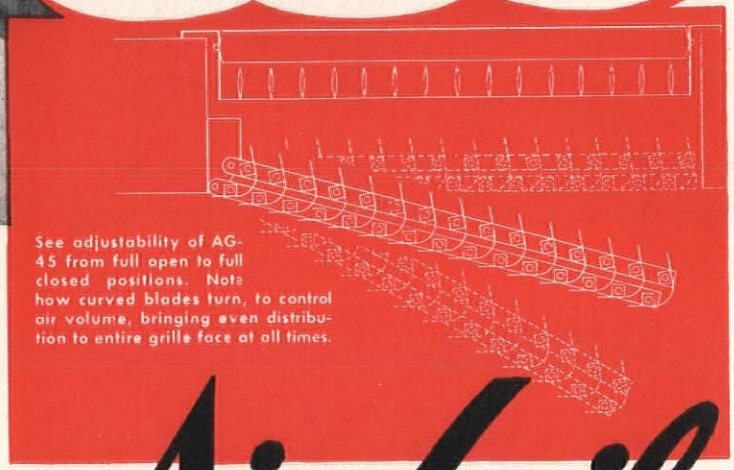
ST. JOSEPH, MO. SEE OUR CATALOG IN SWEET'S HIA HOSPITAL INDUSTRIES ASSOCIATION **Passaic, N. J. • San Jose, Calif.**

CALL OR WRITE FOR THE NAME OF THE HILLYARD MAINTAINEER NEAREST YOU.

ON YOUR STAFF . . .
NOT YOUR PAYROLL

NEW ADJUSTABLE DOUBLE DUTY AIR VOLUME EXTRACTOR & CONTROLLER

FACTORY ASSEMBLY SAVES UP TO 50% OVER SLOW HAND-MADE METHODS



See adjustability of AG-45 from full open to full closed positions. Note how curved blades turn, to control air volume, bringing even distribution to entire grille face at all times.

11 TREMENDOUS ADVANTAGES:

1	FACTORY ASSEMBLED
2	INSTALLS WITH 2 SCREWS
3	Double Duty Extractor & Vol. Controller
4	Replaces Extra Vol. Controller
5	Equalizes Air Distribution & Air Flow
6	Turns Air from Main Duct
7	Reduces Pressure Losses
8	Stops Excess Turbulence
9	Low Cost
10	Rattle Free
11	14 & 20 Gauge Steel

Air Foil
AIR CONDITIONING OUTLETS

Slash unit costs with this amazing new Titus AG-45. Make it easy for yourself to *keep bids low.* Use this *cost saver* to beat competition. Eliminate the extra work of putting in volume controllers. Save time, labor. IMPROVE THE AIR CONTROL EFFICIENCY OF EVERY INSTALLATION. Get complete free information now. Order a sample AG-45 today. Remember, not until you have one of these AG-45s in your hand, can you see its *amazing cost-saving value.* IMMEDIATE DELIVERY.

Free

Check Type of Grille on Which Information Is Desired:

- ☐ Air conditioning outlets
- ☐ Return air grilles and registers
- ☐ Volume controllers
- ☐ Perforated metal and ornamental grilles
- ☐ Industrial grilles
- ☐ Special made-to-order grilles

TITUS MANUFACTURING CORP., WATERLOO, IOWA

- ☐ RUSH information on AG-45 Extractor & Controller
- ☐ Send complete catalog
- ☐ Send literature on above checked items

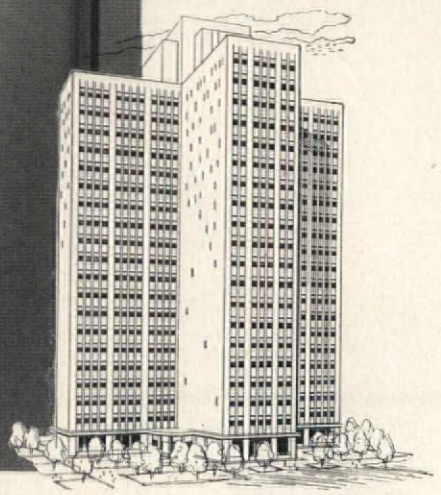
NAME _____

ADDRESS _____

CITY _____ STATE _____

One Gateway Center

Modern Office Building in Pittsburgh, Pa. Architects: Rodgers Associates, New York, N. Y.; Irwin Clavan, New York, N. Y.; Eggers and Higgins, New York, N. Y.



Washrooms of another notable building finished in Carrara Glass

• Through their consistent specification of Carrara Structural Glass, leading American architects have proved it to be a preferred material for walls, stiles and partitions in the washrooms of important buildings. And the reasons behind this preference are many.

Carrara Structural Glass is outstanding for quality. Every piece is mechanically ground and polished. It permits joints that are true and even, without lippage or warpage.

The beautiful, gleaming finish of Carrara Glass is permanent. It won't check, craze, stain or fade. Its smooth, homogeneous surface is unaffected by moisture, soap, damp atmospheres and pencil marks. It won't absorb odors.

Carrara Glass is sanitary . . . and easy to keep clean. It is installed in large sections with fewer joints and crevices to catch dirt and dust.

And Carrara is versatile. Available in ten glowing colors, Carrara Structural Glass lends itself perfectly to an unlimited variety of architectural applications.

For more information on this distinctive material, write Pittsburgh Plate Glass Company, Dept. 4208, 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.

Carrara . . . the quality structural glass

PPG

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

REDUCES VOLTAGE DROP
CUTS POWER LOSSES
INCREASES PRODUCTION EFFICIENCY

Power Plugin BUSDUCT

WITH EITHER COPPER OR ALUMINUM CONDUCTORS

Include this safe, dependable system of power distribution in all your plans for new or modernized industrial construction. You'll find it a splendid investment in greater plant efficiency or economy of operation — one that your client will appreciate.

Ⓕ **POWERPLUGIN** Busduct has been specifically designed to give greater flexibility and efficiency of plant operations by making power available where and when it is needed. It reduces voltage loss to a minimum by eliminating long lead-ins, cuts maintenance costs and provides other savings. Too, it is 100 percent salvageable.

Approved by the Underwriters' Laboratories, Inc., for label service, Ⓕ Powerplugin is made in standard 10 foot lengths with a plug-in outlet every foot of the way or alternately on two sides. It enables machines to be re-located or regrouped without disrupting production, thus facilitating plant operation.

Another feature is that it can be arranged to fit almost any electrical requirement. Sections can be run horizontal or vertical, at floor level or overhead.

Capacities of Ⓕ Powerplugin are 250 to 1,000 amps (1,200 and 1,500 amps also available), 600 volts AC or less with Klampswitchfuz, Shutlbrak or Circuit Breaker plugin units for 200 amps or less.

If you are planning a new plant, or modernization of an existing one, include Ⓕ Powerplugin in your plans and specifications. For additional information about this modern, more efficient and flexible system of power distribution, contact your nearest Ⓕ representative, listed in Sweet's, or your nearest Ⓕ distributor. Or write for Bulletin No. 720.

Features of Ⓕ Powerplugin

Ⓕ Powerplugin is made of 16 gauge steel with attractive pearl gray enamel finish. Insulators are one piece glazed porcelain with steel channel supports riveted into position.

Flush type, hinged cover plug-in openings, simplified, adjustable, two screw type fasteners for plug-in units, two sliding type mounting brackets per section for hanging as desired, electro-silver plated contact surfaces at joints with two or four brass jam bolts with phosphor bronze cup washers in elongated fastening holes are other features. Either Copper or Aluminum Conductors available.

BOX 357, MAIN P. O.
ST. LOUIS, MISSOURI

Frank Adam Electric Co.

Makers of: BUSDUCT • PANELBOARDS • SWITCHBOARDS • SERVICE EQUIPMENT • SAFETY SWITCHES • LOAD CENTERS • QUIKHETER

where you NEED LEEWAY you want Josam LEVELEZE *adjustable top* FLOOR and ROOF DRAINS

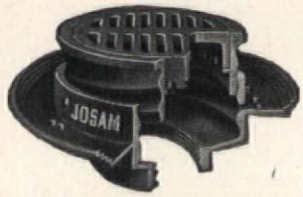
they are always "on-the-level"

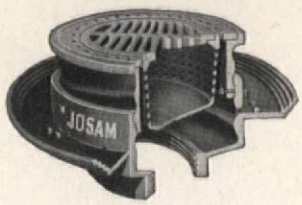
● Where it is difficult to determine the finished level of a floor or roof . . . or where the finished level is subject to change in the future — save time, labor and guesswork by using Josam Leveleze Drains for the drainage requirements.

The adjustable top with rolled thread is completely detachable from the drain body and permits lowering or raising the top to meet the finished level before or after the drain body is set in construction. With other types of drains, it is necessary to tear out construction, disconnect pipe, make expensive repairs if the drain is set too high or too low. With Josam Leveleze Drains, the adjustment is simple . . . easy . . . quick because they can be raised or lowered to meet the occasion!

Get complete information on this exclusive and unusual line of drains by mailing coupon below today!

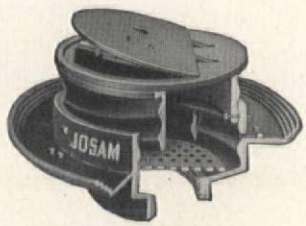
● Josam Series No. 3610 Leveleze Floor Drain with threaded bottom outlet, adjustable collar with rolled thread and round top with deep set tractor grate.

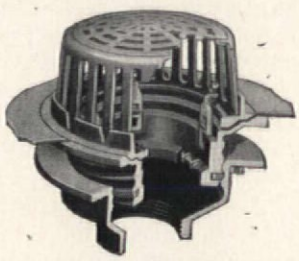




● Josam Series No. 3740 Leveleze Non-Clog Triple Drainage Floor Drain same as Series 3610 but with standard loose set grate, perforated sediment bucket and auxiliary drainage rim.

● Josam Series No. 3710-B Key-Locked Leveleze Floor Drain with adjustable top, solid hinged cover with key-type locking mechanism and internal perforated strainer. Particularly adaptable for institutions, seclusion rooms and a tamper-proof drain is desired.





● Josam Series No. 4550 Leveleze Roof Drain with large mushroom type dome. Adjustable top raises or lowers to meet required insulation thickness even after roof is laid. Body of roof drain can be installed in the rough slab to drain rainfall during construction. Same drain with promenade square top, Series No. 4580.

● Josam Leveleze Extension Collars — For use with any Josam Leveleze Floor or Roof Drain where an extra thick floor or roof slab is installed, or where an additional finish is applied to an old floor or roof.

JOSAM MANUFACTURING COMPANY
DEPT. A. R. • MICHIGAN CITY, INDIANA

Please send literature on Josam Leveleze Drains.

NAME ..... BUSINESS .....

FIRM .....

ADDRESS .....

CITY ..... ZONE ..... STATE .....

JOSAM MANUFACTURING COMPANY

GENERAL OFFICES AND MANUFACTURING DIVISION
MICHIGAN CITY, INDIANA

Representatives In All Principal Cities

West Coast Distributor
JOSAM PACIFIC CO., San Francisco, Calif.

Canadian Manufacturers
JOSAM CANADA LIMITED, Toronto, Canada

SEE RUST-OLEUM APPLIED DIRECTLY OVER SOUND RUSTED SURFACES! MAKE THIS TEST UNDER YOUR OWN CONDITIONS AND SEE PROOF OF PERFORMANCE!

See Rust-Oleum 769 Damp-Proof Red Primer actually applied over a badly rusted surface after simple scraping and wire-brushing to remove rust scale and loose rust in the Rust-Oleum *"rusted panel demonstration."* Rust-Oleum's specially-processed fish oil vehicle *penetrates* rust to bare metal usually eliminating sandblasting and other costly surface preparations.

Rust-Oleum finish coatings in Aluminum, Green, White, Gray, Yellow, Black, Orange, Blue and others provide both *Rust Prevention* and *Decorative Beauty!* Specify Rust-Oleum for new construction, maintenance, and re-modeling. See Sweets for complete catalog and nearest Rust-Oleum Industrial Distributor, or attach coupon to your business letterhead.

See local classified telephone directory under Rust Preventives or Paints for nearest Rust-Oleum Industrial Distributor.

RUST-OLEUM®

STOPS RUST!

There Is Only One Rust-Oleum. It Is Distinctive as Your Own Fingerprint. Resists Rain, Sun, Fumes, Snow, Heat, Salt Air, Salt Water, etc.

ATTACH TO YOUR LETTERHEAD — MAIL TO
THE RUST-OLEUM CORPORATION
2505 OAKTON ST., EVANSTON, ILLINOIS

I want to know more about RUST-OLEUM. Send me without obligation a FREE sample. I intend to test it ☐ indoors; ☐ outdoors; on ☐ wood; ☐ rusted metal; ☐ clean metal; ☐ brick; ☐ concrete; ☐ stucco;

(State on the above line object or structure such as tractor, tank, fence, metal sash, roof, floors, walls, etc.)

Subject to special conditions: ☐ weather; ☐ humidity; ☐ fumes; ☐ brine; ☐ dampness.

☐ I have a chain-link fence. Please send full information on RUST-OLEUM's new Roller Method that cuts re-coating costs.

☐ Send Complete Catalog with Color Guide

Please be sure to indicate Color Preference Here

☐ Have Qualified Representative Call

NOTE: We want to supply you with the correct sample for your test. Please be sure to check off all appropriate information about your problem.

Another distinguished building air conditioned by the Carrier Conduit Weathermaster System

Occupants of these important Houston buildings also enjoy Conduit Weathermaster air conditioning:

Arabia Temple Crippled Childrens Clinic
Commerce Building
Commercial and Industrial Insurance Building
Gulf Building
Hermann Hospital
Hermann Professional Building
Medical Arts Building
Melrose Building
Memorial Hospital
Methodist Hospital
San Jacinto Building
St. Luke's Episcopal Hospital
Texas National Bank
U. S. Veterans Hospital

The City National Bank Building, Houston

What comfort has Houston in common with cities like New York, Washington and Dallas? The Conduit Weathermaster* System serves their finest buildings. This air conditioning, perfected by years of unmatched experience, permits the occupants of each room to dial their own climate. Operation is quiet; there are no moving parts within the room. Maintenance is simplified; all operating equipment is centralized. And installation requires a minimum of space. Carrier Corporation, Syracuse, New York.

*Reg. U. S. Pat. Off.

Carrier first name in air conditioning

BRIXMENT

Better Mortar for Blocks

BETTER BOND

To obtain good concrete block walls, the best possible bond must be secured between the block and the mortar, wherever they come into contact with each other.

The mortar must stay soft and plastic long enough to let the bricklayer level, plumb and straighten the unit — to adjust it to its final position in the wall — before the mortar stiffens.

Brixment mortar has high water-retaining capacity. This prevents the porous unit from sucking the water out of the mortar too fast. It gives the bricklayer sufficient time to bring the block to its final position, while the mortar is still plastic enough to form a good tight bond with the block.

SPECIFICATION NOTES

Re: Door Closers for Recessed side of Doors

AT LAST
No More of This

LOCKWOOD'S new parallel arm allows closer to be attached to door—completely eliminates problem of headroom interference.

NO LOSS of spring power, either—new leverage principle provides adequate closing power!

LOCKWOOD has complete line of parallel arm closers — non-holders, 135° holder arm, 180° holder arm and fusible link holder arms.

Best door closer news yet!

LOCKWOOD

Lockwood

The mark of superior quality

LOCKWOOD HARDWARE MANUFACTURING COMPANY
Fitchburg, Massachusetts

give those bright young eyes
a chance to stay bright with

GUTH SCHOOL LIGHTING

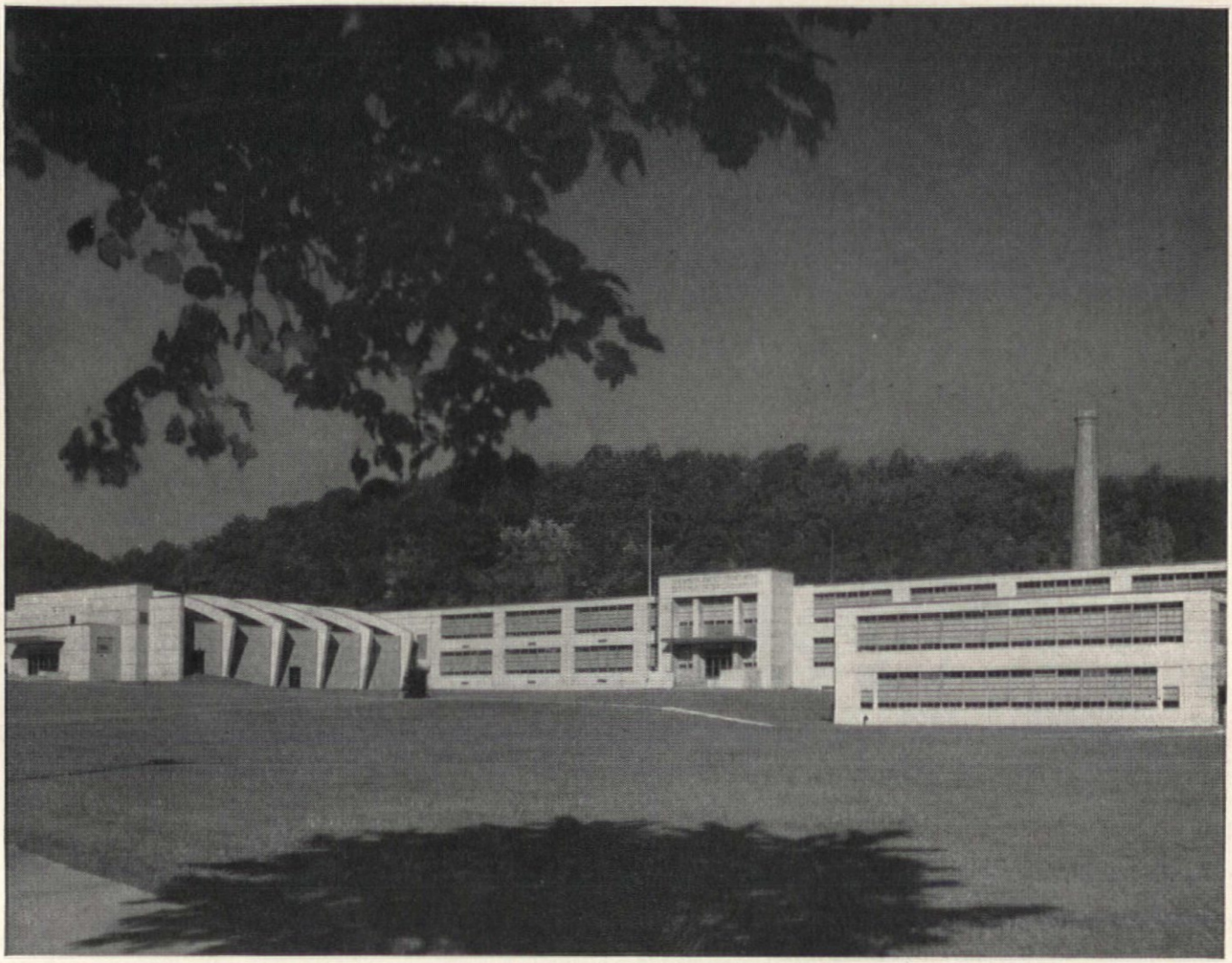
... sight-saving, low-brightness. No glare and gloom to haunt the classroom ... no torturing eye-strain. Easier lessons, healthier, happier students and teachers.

Fluorescent or incandescent—economical in purchase, installation and maintenance.

Write for details on Guth school lighting today.

THE EDWIN F. GUTH CO. • ST. LOUIS 3, MO.

Leaders in Lighting since 1902



Outstanding school built at "astonishingly low cost" with Architectural Concrete

The beautiful Theodore Roosevelt High School in Williamsport, Pa. is considered by many to be the best school building built in the entire area since January 1, 1946.

In commenting on the interest in this school, architect D. H. Grootenboer, A.I.A., said:

"While I take deep satisfaction in the great interest and many favorable comments about one of my buildings, I must point out that architectural concrete made it possible for me to design a modern, completely fire-resistive building at the astonishingly low cost of $0.763 per cu. ft. when fire-resistive buildings of other construction were costing from 10 to 40 cents more per cu. ft."

Fire resistance and low cost are only two of the outstanding characteristics that make architectural concrete the choice of more and more architects. Architectural concrete also offers great durability and strength. It requires little maintenance and delivers ***low-annual-cost*** service.

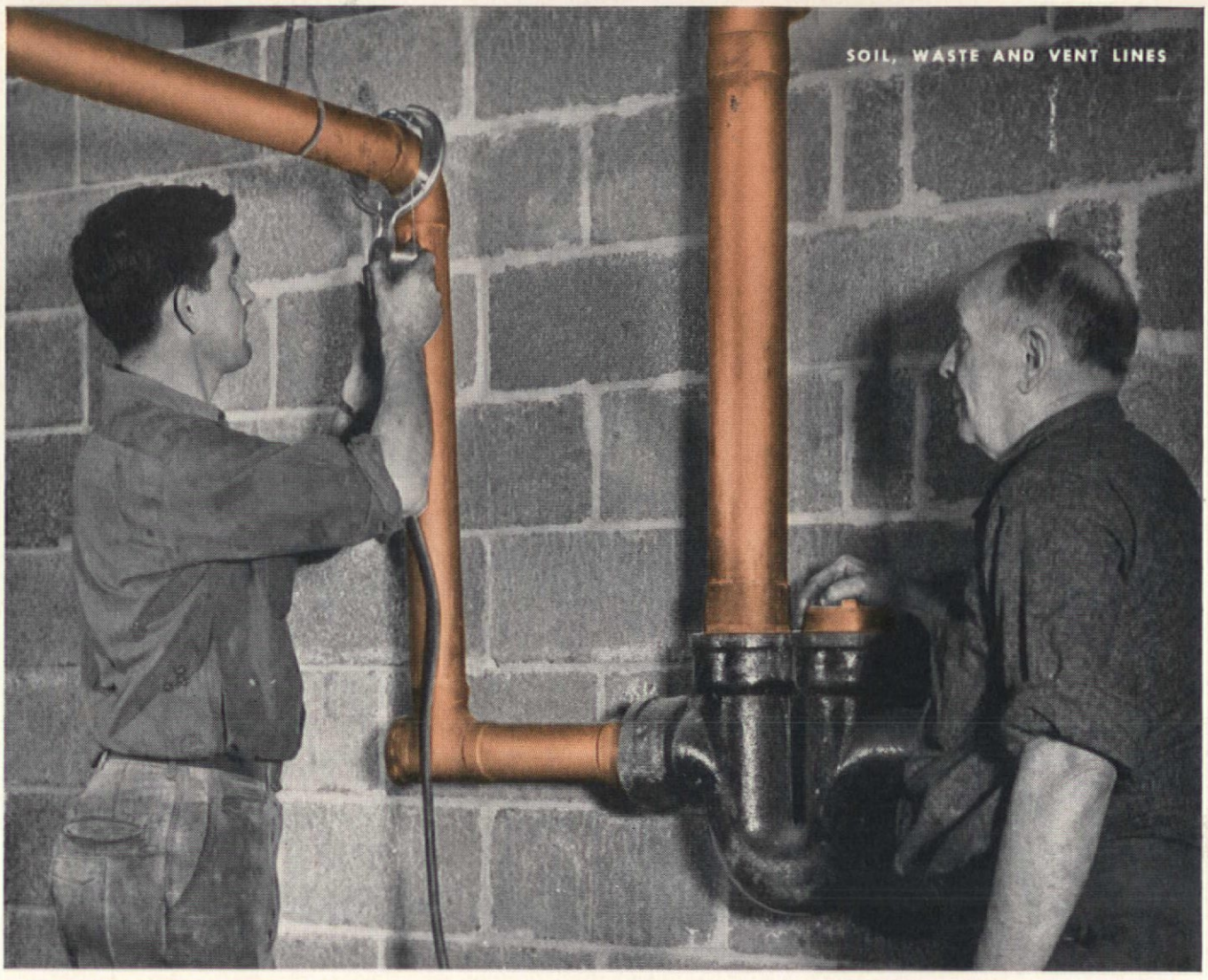
While it is an ideal material for modern schools architectural concrete is equally adaptable to hospitals, apartments, churches, factories, stores, offices and public buildings.

For more information about designing beautiful architectural concrete structures of any size or style, write for free illustrated literature. It is distributed only in the United States and Canada.

PORTLAND CEMENT ASSOCIATION

DEPT. 5-8, 33 WEST GRAND AVENUE, CHICAGO 10, ILLINOIS

A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work



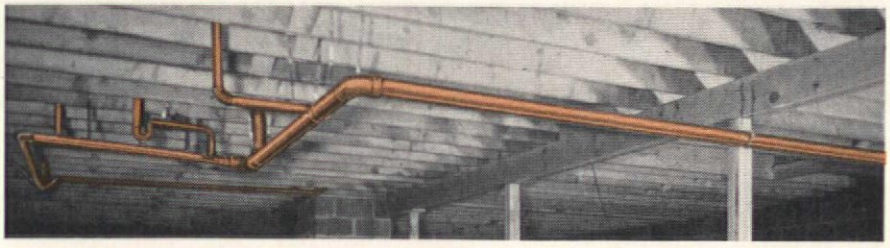
JIM LOWE, PLUMBING CONTRACTOR, watches while son Ed makes last joint with circular torch on a 3″ Type M Copper Tube soil line.

"I use COPPER for a better, faster job—at lower cost"

Jim Lowe is talking about copper tubes and fittings for soil, waste and vent systems. Mr. Lowe has been in the plumbing business for 52 years and is a Past President of the Connecticut State Association of Master Plumbers. Jim goes on to say, "I've always been sold on copper's *quality*. Now I'm just as sold on its *economy*. And so are my customers. My figures prove the final cost of a job is *less* in copper. Yes, material costs are slightly higher, but a big one-third saving in installation costs more than makes up for it.

"Copper tubes weigh about ¼ as much as ferrous pipes. That's important—for faster handling, assembling and hanging. Copper tubes come in long, 20-foot lengths, too. You need fewer joints. And quick solder-type connections can be made in tight places. Where 3″ vent stacks are permitted, they will fit inside a 4″ stud. And remember—copper's reputation for quality and long life adds sales value to any building."

ANACONDA Copper Tubes and Fittings made to standards of highest quality are sold only through recognized wholesalers. *The American Brass Company, Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.* 5316



THIS 16′ length of tube (foreground) points up one of ANACONDA Copper Tube's many time-saving advantages.

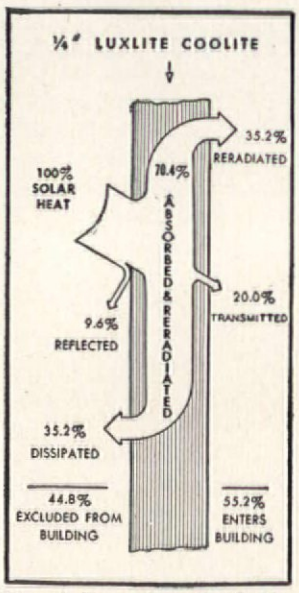
for copper tubes see your

ANACONDA®

distributor

Glare kills care!

COOLITE GLASS CONTROLS "RAW SUNLIGHT" ...PROTECTS PRODUCTION AND MORALE



Schematic diagram shows what Coolite does to the sun's heat. Distribution and control of light, itself, is effected primarily by Mississippi's special Glare Reducing finish.

Blinding glare reflected from any surface makes accurate work almost impossible... any task difficult. And the accompanying excess solar heat of "raw sunlight" through ordinary glass creates uncomfortable working conditions that can adversely affect output and morale.

Don't let raw sunlight flood your factory with fatigue... tiring, eye-straining illumination and energy-sapping excess heat. Coolite, the heat absorbing and glare reducing glass by Mississippi, floods work areas with copious quantities of conditioned, natural light at low cost. Coolite-controlled lighting is comfortably different, cool and clean. Workers see better... feel better, work better in plants using Coolite, the glass that helps fight eye fatigue and cuts costly mistakes.

In your plans for new industrial buildings or in modernization projects, it will pay you to find out how Coolite can increase efficiency and economy. Translucent, light diffusing, figured and wired glass by Mississippi is available from your nearby supplier in a wide variety of patterns and surface finishes, all "Visioneered" to distribute light to best advantage.

Send for free catalog, "Coolite Heat Absorbing and Glare Reducing Glass." Samples on request.

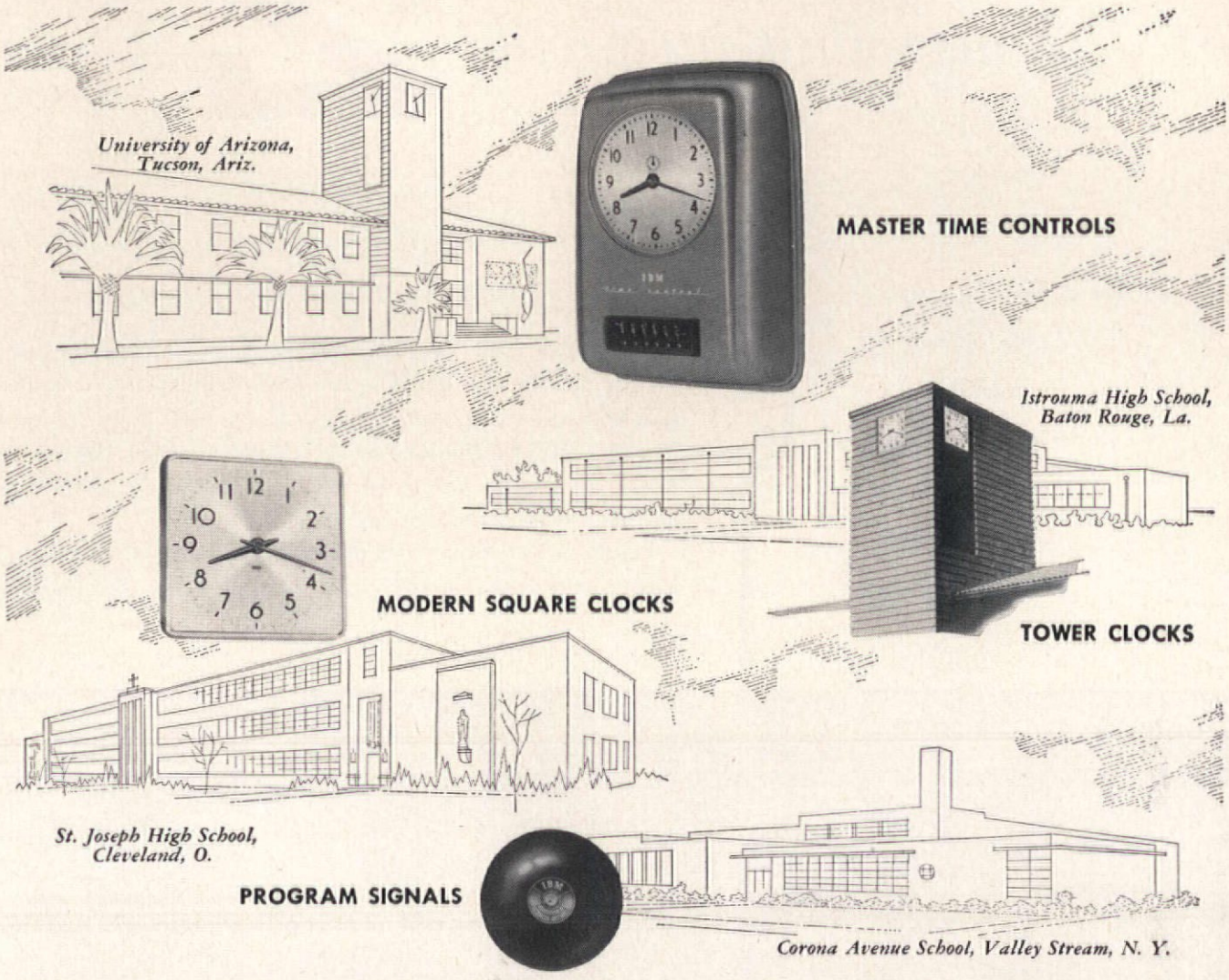
MISSISSIPPI Glass COMPANY

88 ANGELICA ST. SAINT LOUIS 7, MO.

NEW YORK • CHICAGO • FULLERTON, CALIF.

see our catalog in ARCHITECTURAL FILE or write for copy

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS



THOUSANDS OF U.S. SCHOOLS ARE RIGHT ON TIME

In planning a new building, adding to or remodeling an existing one . . . you can specify an IBM Electronic Time System *with fullest confidence.*

This modern time and program signaling system features around-the-clock self-regulation . . . as much as 12 hours when required. It synchronizes, coordinates clocks and signals—*without special unit-to-unit wiring.* Its programing flexibility allows for automatic control of utilities—lighting, heating, ventilating, water-flow—too.

Write to IBM for the latest data on time systems and other IBM time equipment.

with . . . **IBM** *Time* Equipment

FIRE ALARM SYSTEMS add their extra measure of safety to building and occupants . . . deliver emphatic signals on demand.

INTERCOMMUNICATING TELEPHONE SYSTEMS . . . automatically connect classrooms and office . . . save time and steps for teachers, administrators.

NEW RADIO-SUPERVISED TIME CONTROL . . . a major advance in precision timing, is tuned to U. S. Bureau of Standards broadcast time signals . . . resets itself if out of synchronization. Delivers radio tone and voice announcement of time, permitting sight and sound check of clock's accuracy.

ELECTRONIC UTILITIES CONTROL . . . saves time, effort, money by eliminating need for manual supervision in actuating water flow—opening and closing ventilators—switching light circuits, heating and air conditioning systems on and off.

INTERNATIONAL BUSINESS MACHINES • 590 MADISON AVENUE, NEW YORK 22, N. Y.

Branch offices throughout the U. S.

ACADEMY BLUE ALUMILITE

change that face with ZO

Zourite is the amazingly versatile aluminum facing material that's made in 5 porcelain enamel colors, Alumilite, and Alumilite Gray.

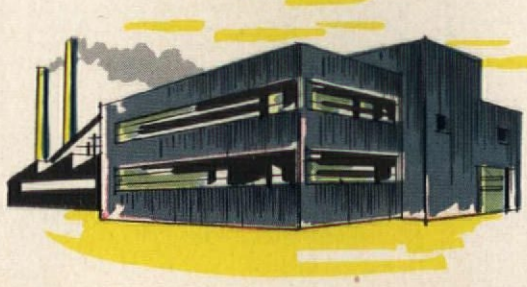
modernize buildings now at low cost with colorful, permanent Zourite

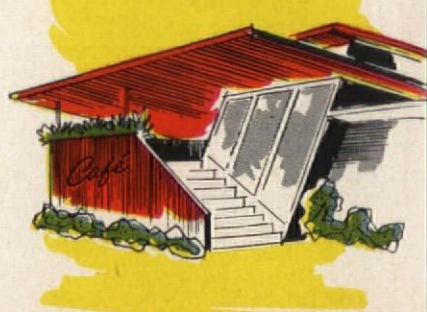
Change that face! Brighten dull exteriors with business-inviting Zourite. Zourite has 1001 uses. It's easily adapted to everything from simple identification background, to facing for a multi-storied building. The beautiful Zourite colors are: Academy Blue, Harvest Brown, Sunset Red, Spring Green and Velvet Black. Or you can have Zourite in Alumilite or Alumilite Gray.

Zourite is as near as your phone. For further information phone, wire or write your nearest Kawneer office listed on the opposite page.

change that face—use Zourite for

IDENTIFICATION BACKGROUNDS • STORE FRONTS
PYLONS • SPANDRELS • BULKHEADS • PILASTERS
COLUMNS • TRIM • BUILDING FACINGS • PARTITIONS





HARVEST BROWN SPRING GREEN ALUMILITE GRAY SUNSET RED VELVET BLACK

URITE

People avoid this store. It just doesn't look good outside, so they don't expect to find much inside.

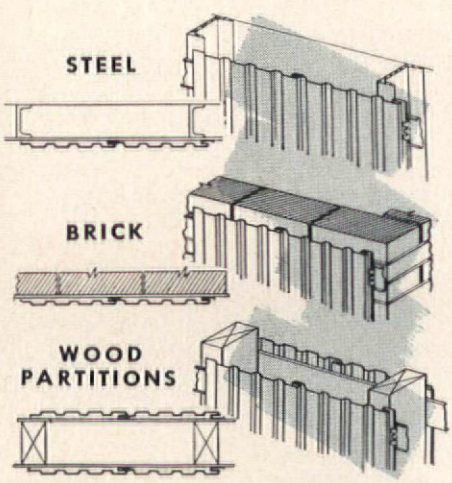
Customers are attracted to this store. Zourite's good looks say, "Smart people, good service, good values inside."

if a building has one of these faults, change that face with beautiful Zourite

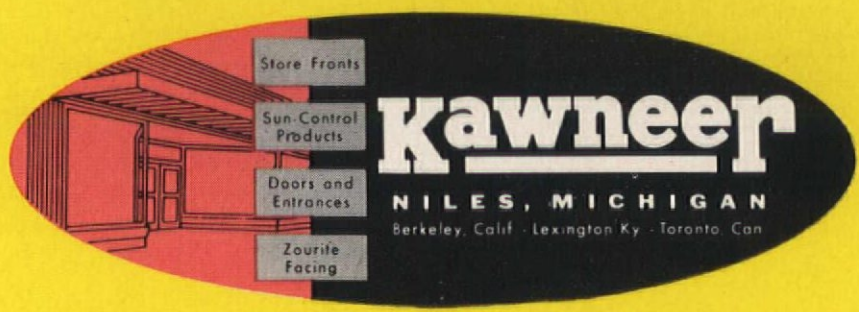
- Lack of color
- Old fashioned design
- Old common brick facing
- Worn out paint job
- Plain cement block facing
- Old style windows
- Poor identification
- Tattered awnings

Phone, wire or write your nearest Kawneer Office now for quick information on how to correct these faults with Zourite.

how Zourite works



Application of Zourite to steel, masonry or wood construction is quick and simple with the patented Anchor Clip and Zourite Furring Channel spaced 24" O.C. It's lightweight and is easily cut on the job, or shop fabricated. Zourite is made of .050 thick aluminum and is available in 4 widths from 2⅛" to 8½", and there are 9 trim members to meet all corner and edge conditions. Phone, wire or write now for additional technical information.



SALES OFFICES:

ATLANTA, GEORGIA
714 Lee Street, S.W.

BERKELEY 10, CALIFORNIA
930 Dwight Way

BROOKLYN 6, NEW YORK
345 Ten Eyck Street

CAMBRIDGE 42, MASS.
320 Binney Street

CINCINNATI, OHIO
805 Second Nat'l Bank Bldg.
832 Main Street

CHICAGO 30, ILLINOIS
4532 N. Elston Ave.

CLEVELAND 14, OHIO
718-719 The Arcade

DALLAS 2, TEXAS
131-35 Payne Street

GRAND RAPIDS 4, MICH.
1250 Alpine Avenue, N.W.

KANSAS CITY, MO.
Room 617
20 West 9th Street Bldg.

LOS ANGELES 58, CALIF.
4801 Pacific Boulevard

NEW YORK 36, NEW YORK
Room 2346
11 West 42nd Street

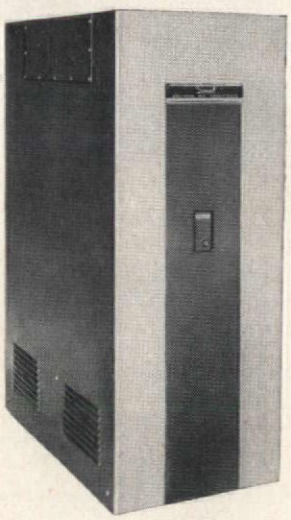
PHILADELPHIA, PA.
44 S. Lansdowne
P. O. Box 43

ST. LOUIS, MO.
34 N. Brentwood Blvd.

CANADA LTD.
Don Mills Rd.
Toronto 6, Ont., Canada

700 homes in one area priced as low as $10,995 now being built with Gas Air-Conditioning throughout

BUILDER: Fausett & Co. of Little Rock, Ark.
ARCHITECT: Wm. Van Valkenburgh



SERVEL Gas air-conditioning and heating unit being used in the Arkansas development and in countless other homes. 2-ton unit shown is 27¼" wide, 46" long, 74½" high—occupies only 8.7 square feet of floor space.

The nation's largest air-conditioned housing project uses Gas. Why?

Part of the reason is the big Gas plus: one fuel, one system. But there's even a stronger reason. The builder realizes 700 homes aren't going to be sold overnight; in fact they aren't even going to be built overnight. People will be living in some of the houses for months before their new neighbors move in. And word gets around as to how satisfactory an air-conditioning system is.

Gas air-conditioning has everything. The simple positioning of the cooling-heating lever changes it over from Winter heating to Summer cooling. The air is then refrigerated, cleaned, dehumidified and circulated . . . *all through the house.* The heating and cooling units have no moving parts to vibrate or wear out; in fact, they carry a 5-year warranty. And operating costs are low.

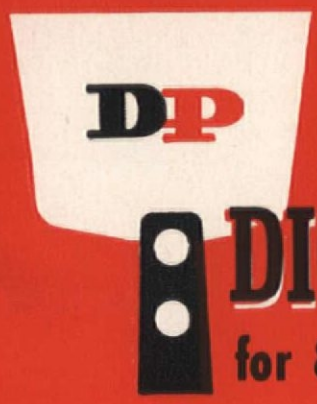
Can you afford it for your homes? Ask yourself, rather, can you afford not to have it. Air-conditioning is now the great demand in building. It almost pays for itself by relieving you of the necessity for installing movable windows, screens, attic fans, porches, fireplaces.

Then, too, your local Gas company has the know-how to advise you on every step of this operation. As you know, Gas heating is greatly preferred throughout the country. Why not add the easy plus of air-conditioning in one trouble-free unit?

only **Gas** gives greatest year-'round comfort

GAS—the modern fuel for automatic cooking . . . refrigeration . . . water-heating . . . house-heating . . . air-conditioning . . . clothes-drying . . . incineration.

AMERICAN GAS ASSOCIATION



DICKS-PONTIUS

for 87 years, supreme quality

- GLAZING COMPOUNDS
- CAULKING COMPOUNDS
- PUTTIES
- MASTICS
- SEALING COMPOUNDS

Specify D-P with complete confidence

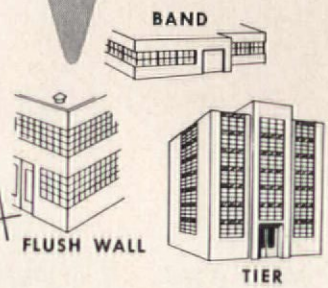
See Sweets Architectural File, $\frac{6C}{Di}$ for complete Dicks-Pontius product descriptions and specifications—or write direct for your personal copy of our catalog.

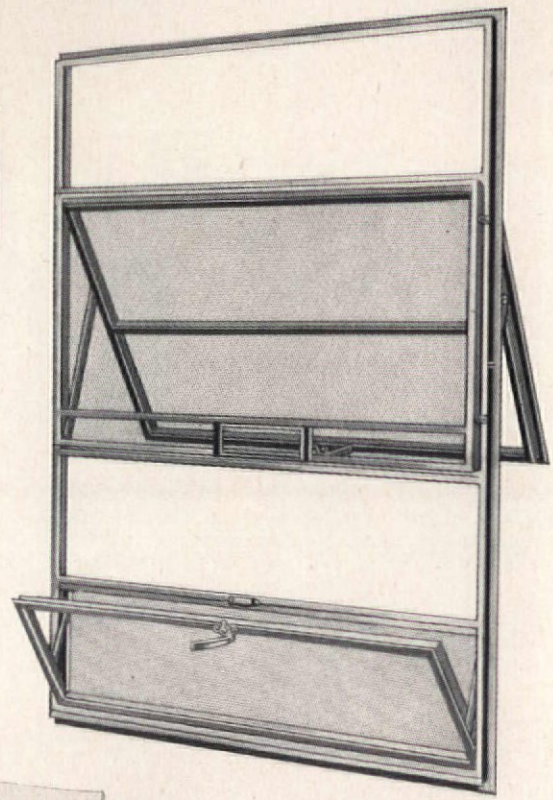
The Dicks-Pontius Company · Dayton, Ohio
Alexandria, Va. · Decatur, Ga. · Dallas, Tex.

Another far-reaching advancement from

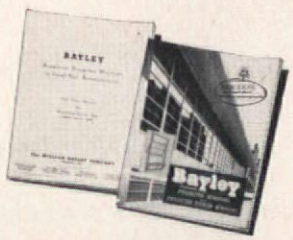
BAYLEY *Visioneering**

ALUMINUM PROJECTED WINDOWS IN PANEL WALL ARRANGEMENTS





Bayley Visioneering makes another contribution to advanced building architecture. Without the costliness of special window designing you can now execute many of your design treatments in modern panel-wall or "skin" construction. With Bayley sub-frame design, which accommodates separate window units, standard Bayley Aluminum Projected Windows (with channel frames) of any standard size can be used—offering wide flexibility in the use of newer panel decorating materials, plus the desired window area for providing maximum air, light and vision. The maintenance-free aluminum construction of the Bayley projected-type window complements all types of building materials. If you're not fully acquainted with this newest Bayley development be sure to look up Bayley's Aluminum Window Catalog in Sweet's or write.



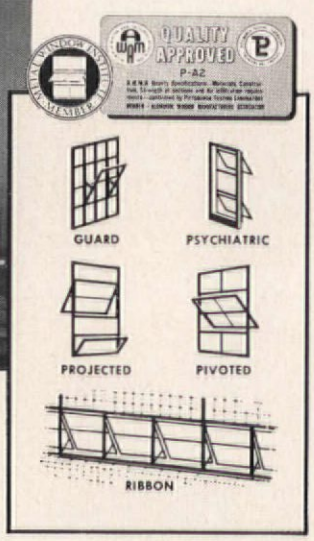
WRITE TODAY for these two helpful Data Files . . .

The Catalog gives you complete specifications, while the Drafting Room Standards give full size details for drafting simplification.

**Visioneering—The science of coordinating vision, air and light in modern building walls with windows of advanced design.*

Bayley Visioneering* Reflects 75 Years of Reliability

*Copyright 1954 The William Bayley Company



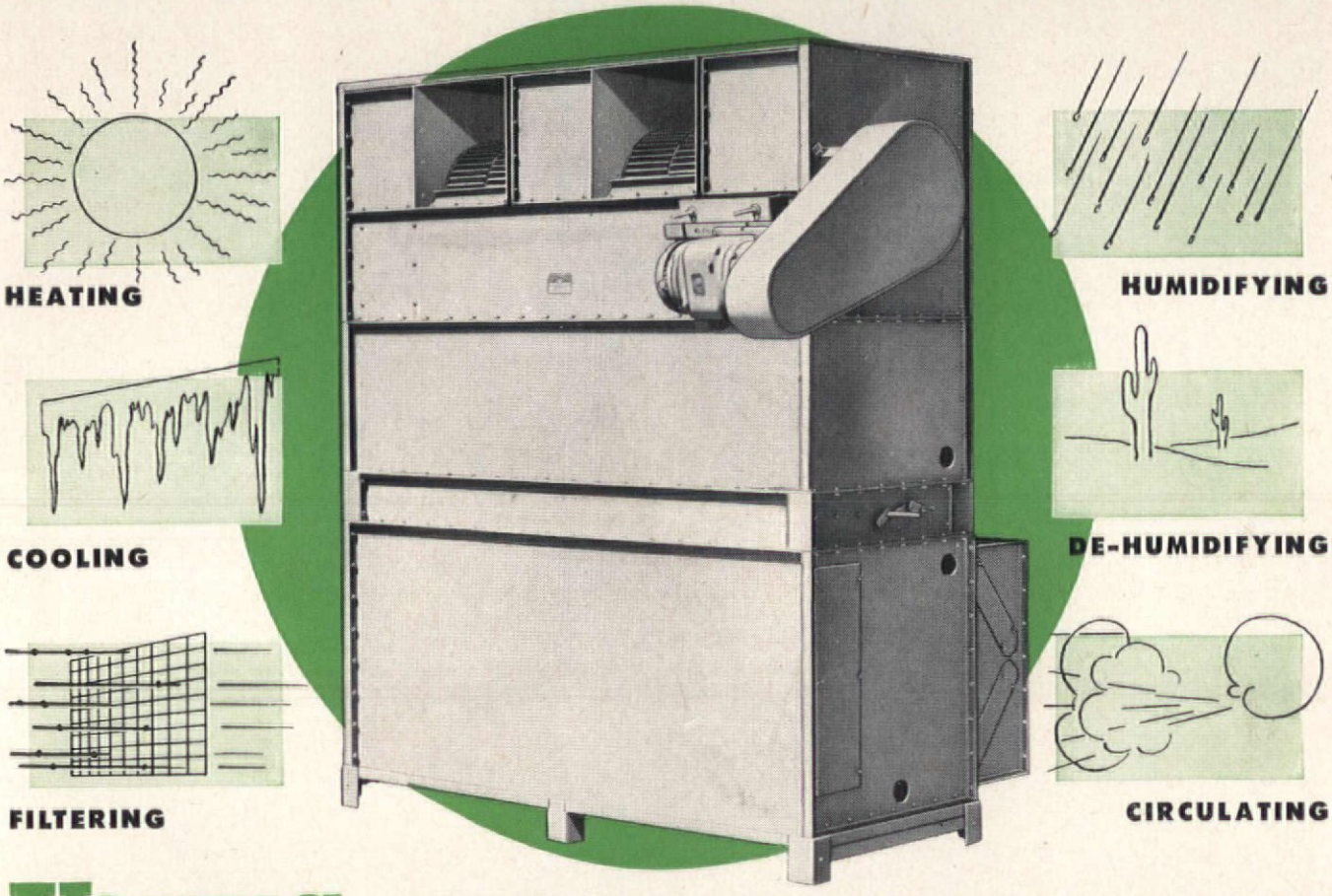
THE WILLIAM BAYLEY COMPANY

Springfield, Ohio

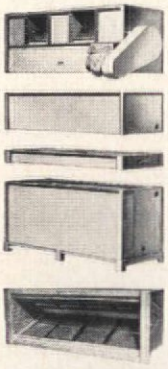
District Offices:

Springfield | Chicago 2 | New York 17 | Washington 16

here's COMPLETE flexibility in UNIT AIR CONDITIONERS



YOUNG SECTIONAL "YAC" UNITS



FAN SECTION—Dynamically balanced multi-blade fan(s). Air discharge direction alterable.

HEATING COIL SECTION—With non-ferrous tube and fin coils available for hot water and steam.

DAMPER SECTION—Furnished with face or face and bypass dampers as required.

BASE & COOLING COIL SECTION—With serpentine or cleanable type water, or direct expansion coils.

FILTER SECTION—Incorporating either throw away or cleanable type filters.

MEET EVERY AIR CONDITIONING REQUIREMENT

Young sectional design air conditioning units enable you to offer year-around comfort. To meet specific requirements, "YAC" units are available in any combination from simple heating or cooling to complete air conditioning, including heating, humidifying, cooling, dehumidifying, filtering and circulating. "YAC" units are built in eight compact sizes, in either horizontal or vertical types, in capacities from 400 to 15,748 cfm. They can be installed either right or left hand. Young sectional design also permits greater ease in handling, installing and servicing. For further details or Catalog, see your nearest Young sales representative listed in the "yellow pages" of your telephone book, or write direct.

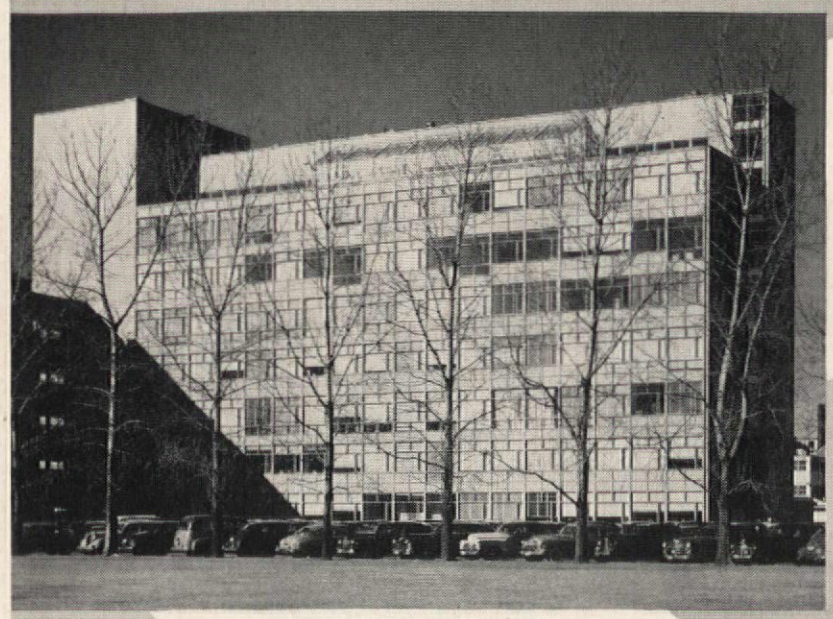
YOUNG

...AN "OLD" NAME IN HEAT TRANSFER ENGINEERING

YOUNG RADIATOR COMPANY

Dept. 614-E • Racine, Wisconsin • Factories at Racine, Wisconsin and Mattoon, Illinois

Sales and Engineering Offices in All Principal Cities



The new Dorrance Laboratory
of Biology and Food Technology
Massachusetts Institute of Technology
Cambridge, Massachusetts

Architect
Anderson & Beckwith

General Contractor
Sawyer Associates Construction Co.

Plumbing Contractor
M. Ahern Co.

DURIRON for corrosion resistance at M.I.T.

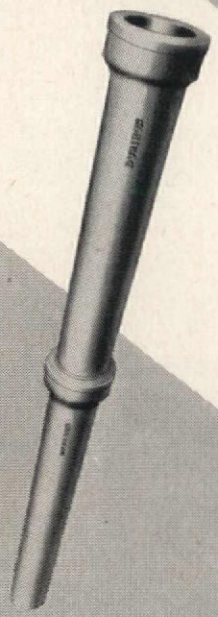
Duriron was the choice for the extensive waste disposal system on all the floors of M.I.T.'s new John Dorrance Laboratory because of the corrosive solutions to be handled.

Architects specify Duriron Acidproof Drain Line because they know it meets the requirements of corrosion resistance and will generally outlast the building.

Duriron is a high silicon iron which resists most corrosives, as well as erosion and abrasion *throughout the entire wall thickness.* It is installed by ordinary plumbing methods.

Duriron pipe and fittings are available from stock in principal cities. Duriron Catalog PF/4 gives physical characteristics and complete details.

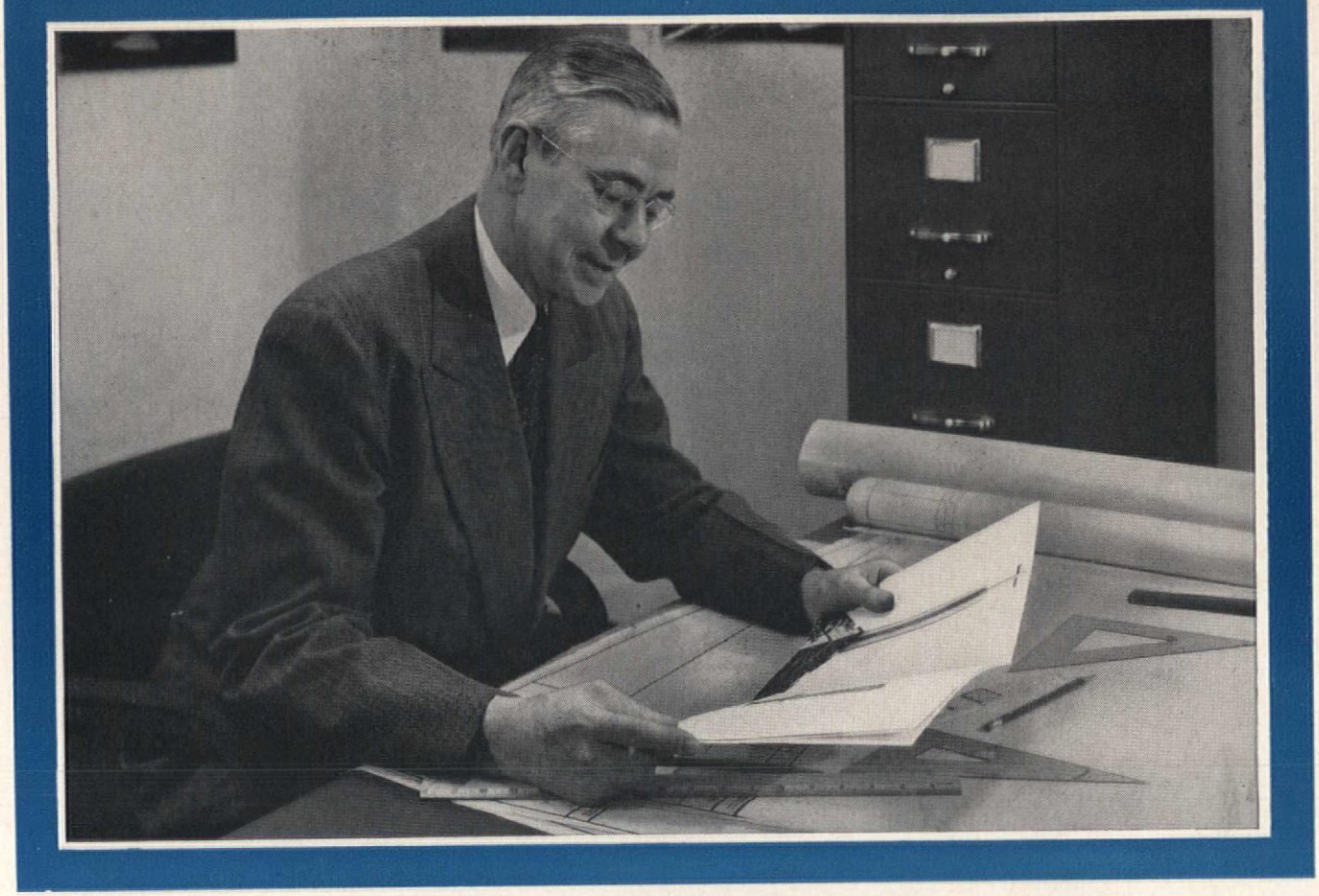
Specify Duriron—Insist upon Duriron.



DURIRON
LOOK FOR THE NAME ON EVERY PIECE

THE DURIRON COMPANY, Inc.
Dayton, Ohio

DURCO
CORROSION RESISTING ALLOYS & EQUIPMENT



NOW, AN IMPRESSIVE BROCHURE FOR ARCHITECTS CONCERNED WITH CHURCH SPIRE ARCHITECTURE

"Pointing to God" now available with over 35 illustrations of ancient and modern spires

CHURCH spires have played a noble part in the spiritual history of Western Man. For 15 centuries, they have been powerful symbols with which man has expressed his desire to commune with God.

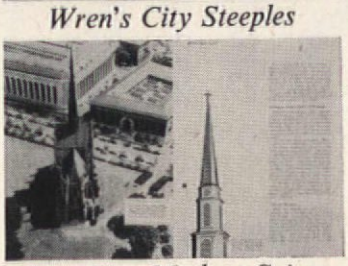
Believing that a survey of spire architecture is of special interest to architects and churches today, when lightweight metals and new techniques are so wonderfully reviving the form, Overly Manufacturing Company presents a 28 page brochure on spires.

Over 35 illustrations illuminate the text. All the great schools of spire architecture, from the 6th century through modern times, are presented. Problems of lateral stress, leakage, corrosion and buckling are discussed. Materials and techniques are covered.

Overly's brochure, "Pointing to God," is offered without charge to registered architects and churches. (The price is $1.00 per copy to all other interested parties.)

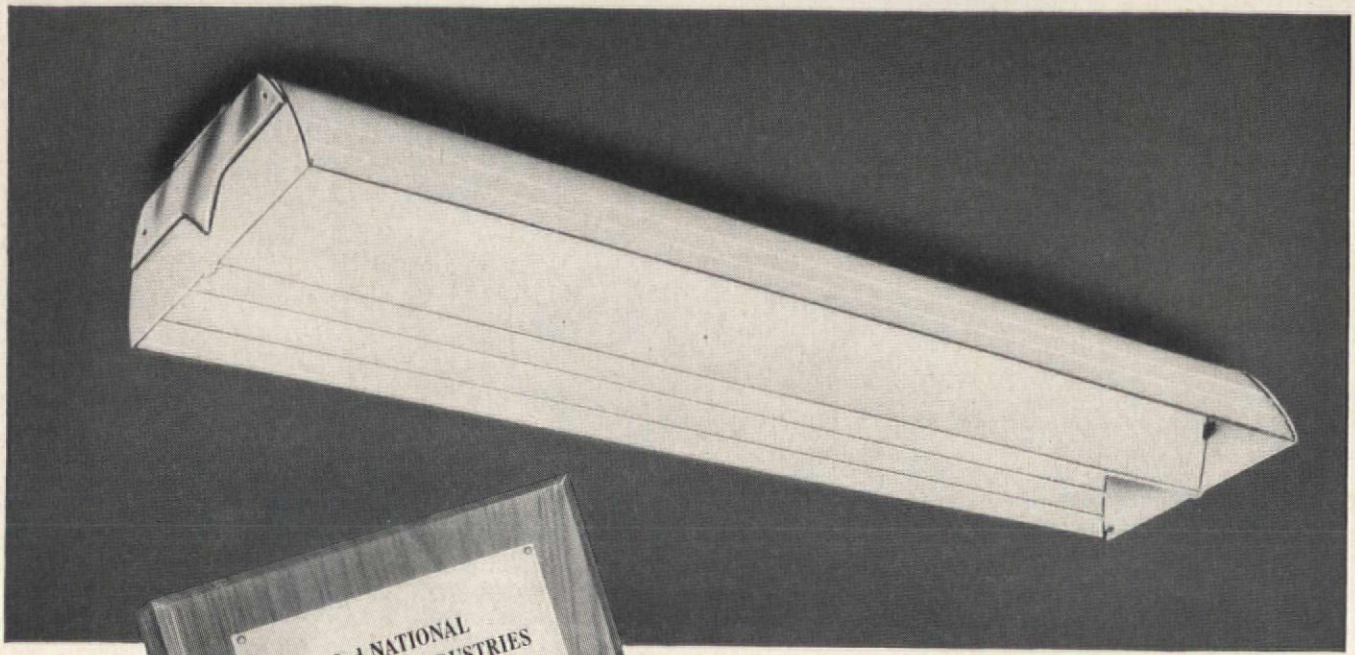
Write on your firm or church letterhead to . . . *OVERLY MANUFACTURING COMPANY, GREENSBURG, PENNSYLVANIA.*

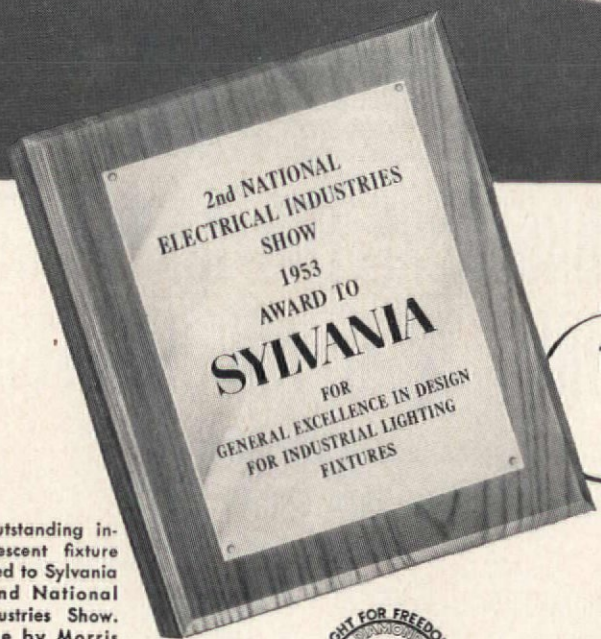
Wren's City Steeples



Two Fine Modern Spires

ARCHITECTS! Specify Sylvania... the award-winning fluorescent fixture!





Plaque for outstanding industrial fluorescent fixture design awarded to Sylvania by the Second National Electrical Industries Show. Judging done by Morris Lapidus and Francis Gina, members of the New York Chapter of the A.I.A.

Any way you look at it, this new Sylvania IC Series of Fluorescent Fixtures is a winner. Its appearance is smooth, smart, and harmonious. Its efficiency is unsurpassed by any similar type fixture, and it offers economy of installation and maintenance.

Wonderfully versatile!

This fixture meets the needs of scores of applications. Available in 4, 5, and 8-foot lengths, with deep "V" reflector and side panels, they provide 45° crosswise shielding. The addition of louvers provides 45° longitudinal shielding. Also may be equipped with the new T-17 low-brightness lamps for critical seeing tasks (42° crosswise shielding for this lamp).

Metal parts are Bonderite treated to resist deterioration. Channels, shielding, and steel panels finished in Sylvania's Miracoat baked enamel give 86% reflectivity.

For full details and the latest specification sheets call your nearest Sylvania Representative or write to Dept. 4X-1305, Sylvania.

LIGHT FOR FREEDOM
POWER FOR PROGRESS

SYLVANIA

Sylvania Electric Products Inc. 1740 Broadway, New York 19, N. Y.

In Canada: Sylvania Electric (Canada) Ltd.
University Tower Bldg., St. Catherine Street, Montreal, P. Q.

LIGHTING · RADIO · ELECTRONICS · TELEVISION

GIVE EVERY JOB *The Quality Touch* OF CHASE COPPER

Copper adds
extra value
to any home!

Once a radiant heating system is installed, it's there to *stay*—buried in the ceiling or floor. Your reputation depends on how good a job it is.

That's why it's so important to specify Chase *quality-controlled* Copper Tube for every radiant heating job. With Chase Copper Tube, you needn't worry about leaks or corrosion—and Chase Copper Tube simply *cannot* clog with rust! You're sure of a system that will give even, uniform heat...a system that will add value to *any* home.

To be sure of quality, make sure it's Chase!

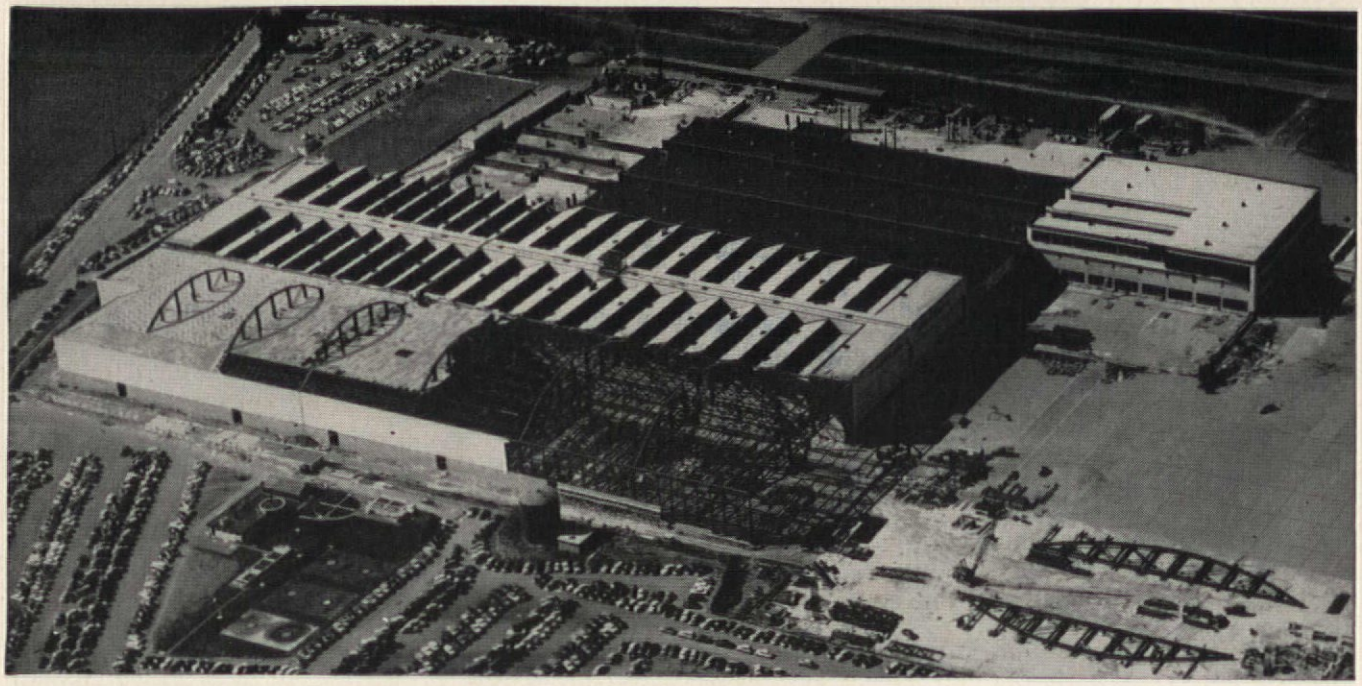
Chase

BRASS & COPPER CO.

WATERBURY 20, CONNECTICUT • SUBSIDIARY OF KENNECOTT COPPER CORPORATION

The Nation's Headquarters for Brass & Copper

Albany†	Chicago	Denver†	Kansas City, Mo.	Newark	Pittsburgh	San Francisco
Atlanta	Cincinnati	Detroit	Los Angeles	New Orleans	Providence	Seattle
Baltimore	Cleveland	Houston	Milwaukee	New York	Rochester†	Waterbury
Boston	Dallas	Indianapolis	Minneapolis	Philadelphia	St. Louis	(†sales office only)



CAMEL-BACK TRUSSES AND STEEL JOISTS COMBINED IN UNUSUAL ROOF STRUCTURE

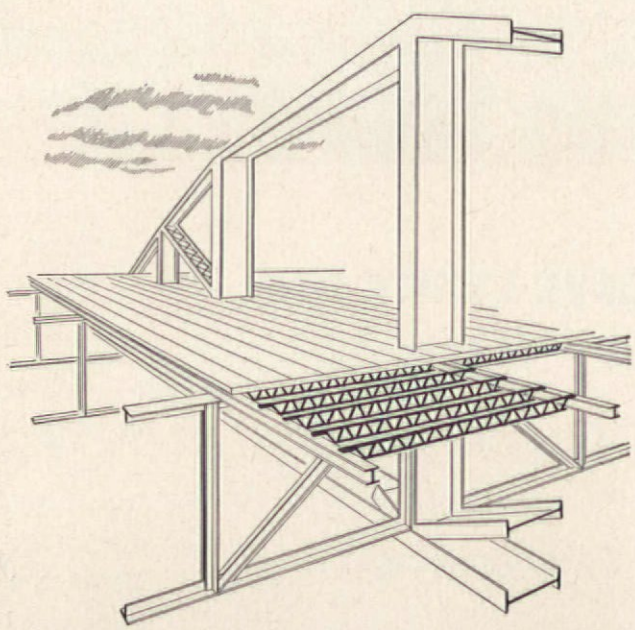
An unusual roof construction—applying bridge engineering principles to a building, with a substantial saving in cost—is a subject of current interest in building-construction circles. The building is the new Fairchild aircraft production bay at Hagerstown, Md.

The designers wanted a 200-ft-wide production area. By using camel-back trusses of structural steel, a column-free area of the desired width was obtained. But the unique feature of the construction was covering the structure with a flat roof at what would correspond to the deck level of a bridge, rather than enclosing the arched trusses, which, in the completed building, are left exposed. By so doing, a saving estimated at 18 pct was made in the cost of the roof construction. At the same time, heating, lighting, and future maintenance were simplified.

For the flat roof, precast concrete planking was laid over sturdy Bethlehem Open-Web Joists used as purlins, which easily carry the weight of the concrete roofing. Further, construction costs were reduced because of the ease of installation of the joists, which required only field welding to secure them firmly in place. They reached the job site completely fabricated and clearly marked.

White cement flooring and white interior paint, covering the exposed joists, give excellent lighting quality to the production area.

Bethlehem supplied the structural steel and 155 tons of Open-Web Steel Joists.



Lehigh Structural Steel Company, Allentown, Pa., fabricated and erected the steel framework of Fairchild Aircraft Division's new production bay with its unusual roof construction. Architects and Engineers: Fordyce, Hamby, Strobel and Panero, New York City.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

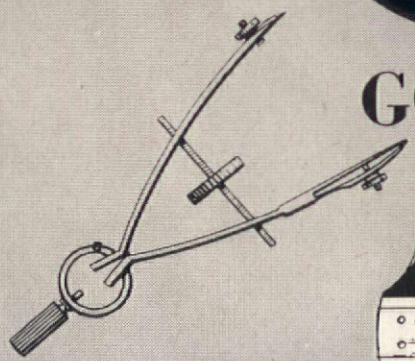
BETHLEHEM OPEN-WEB STEEL JOISTS

BETHLEHEM STEEL

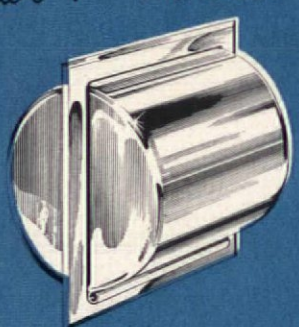
When Building or Remodeling

you'll find HALL-MACK® is full of

GOOD IDEAS for your bathroom plans



Idea #1 PLAN SMART STYLING with a



CONCEALED TOILET PAPER HOLDER

Here's the ultimate in good taste—a recessed holder with a gleaming chrome cover that lifts at the touch of a finger! Hall-Mack Catalog No. 378

Idea #2 ADD UTILITY with the EXTENDO-BAR

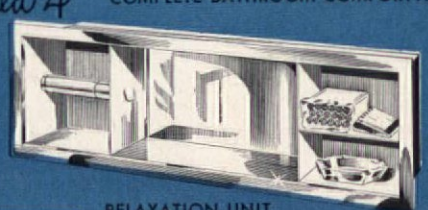
An attractive, modern towel bar ...retractable extensions pull out instantly for extra drying space. Catalog No. 691

Idea #3 FOR SMALL SPACE CONVENIENCE...

CRYSTALCROME TOWEL RING

Crystal-clear, stirrup-shaped Lucite ring with a sparkling chrome base...for extra luxury in small spaces. Catalog No. 186

Idea #4 COMPLETE BATHROOM COMFORT...



RELAXATION UNIT

Recessed toilet paper holder, utility shelf and smoking unit. In beautiful chrome finish for lasting beauty. Catalog No. 300

Idea #5 DESIGNED FOR ROOMY LUXURY...

THE LIGHTED MIRRO-GLIDE

A fully recessed, lighted medicine cabinet. Double width with smooth-gliding plate mirror doors. Catalog No. MGL-4024

Idea #6 BRINGS THREE-WAY CONVENIENCE

ADJUSTABLE-MIRROR CABINET

Three full plate mirrors adjust for all around shaving and make-up use. Full center medicine cabinet and practical twin fluorescent light pillars. Catalog No. FLP-1826W

Idea #7 AN INTRIGUING, ORIGINAL IDEA...

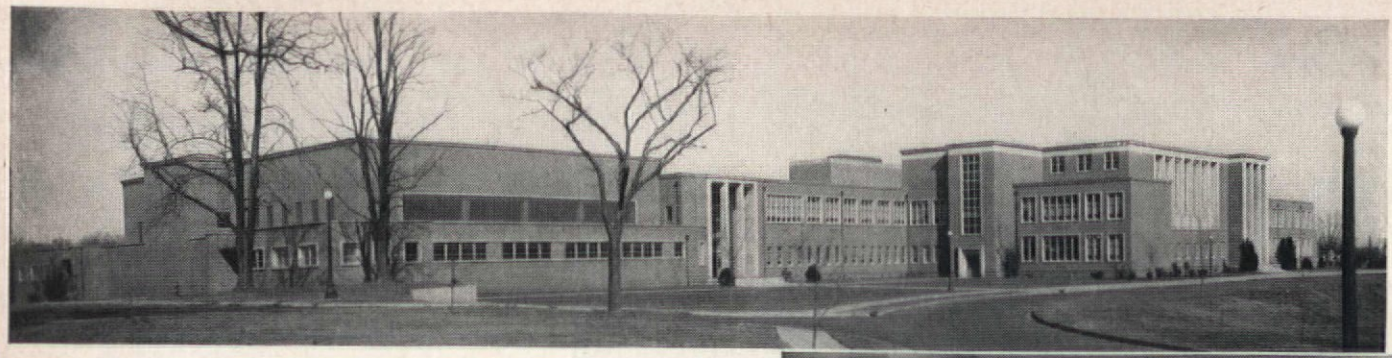
CONCEALED LAVATORY UNIT

A flush panel of gleaming chrome revolves at the touch of a finger for instant use of the tumbler, toothbrushes or soap. Catalog No. 338

Sold by Leading Plumbing, Tile and Hardware Dealers Everywhere

HALL-MACK COMPANY

1344 WEST WASHINGTON BLVD., LOS ANGELES 7, CALIF.
7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS
1000 MAIN AVENUE, CLIFTON, NEW JERSEY



E. C. GLASS HIGH SCHOOL

Lynchburg, Virginia

Architect:

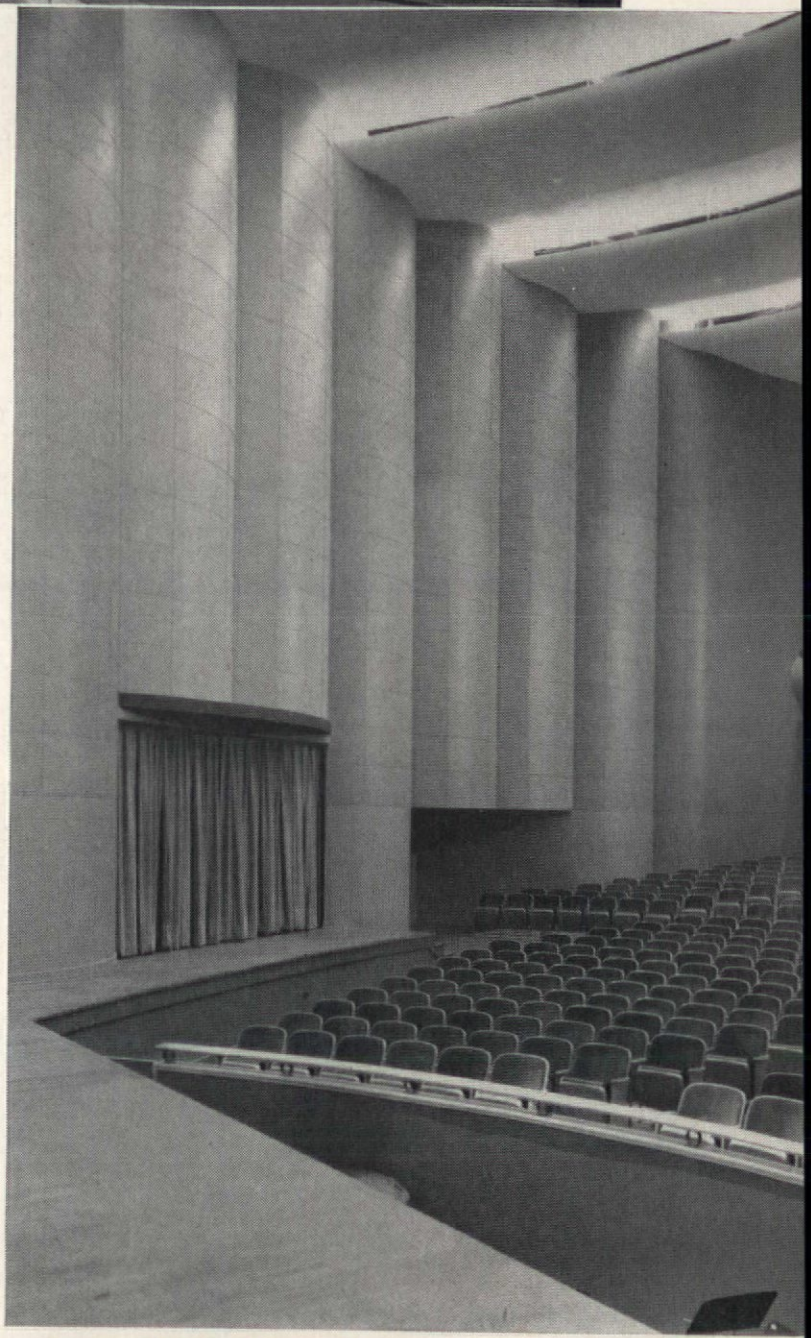
Pendleton S. Clark

General Contractor:

Good Construction Co.

Acoustical Contractor:

W. Morton Northen & Co.



Seating over 2100 people, the main school auditorium is acknowledged to be one of the finest in the world. Treated with Perforated Hardboard around the radial surface of the sidewalls and Perforated Asbestos Board on the rear wall, it has almost perfect acoustics.

The new E. C. Glass High School in Lynchburg, Virginia, is an impressively large building. In its thoroughly up-to-date design, architect Pendleton S. Clark has reflected the dignity and charm of this conservative southern city.

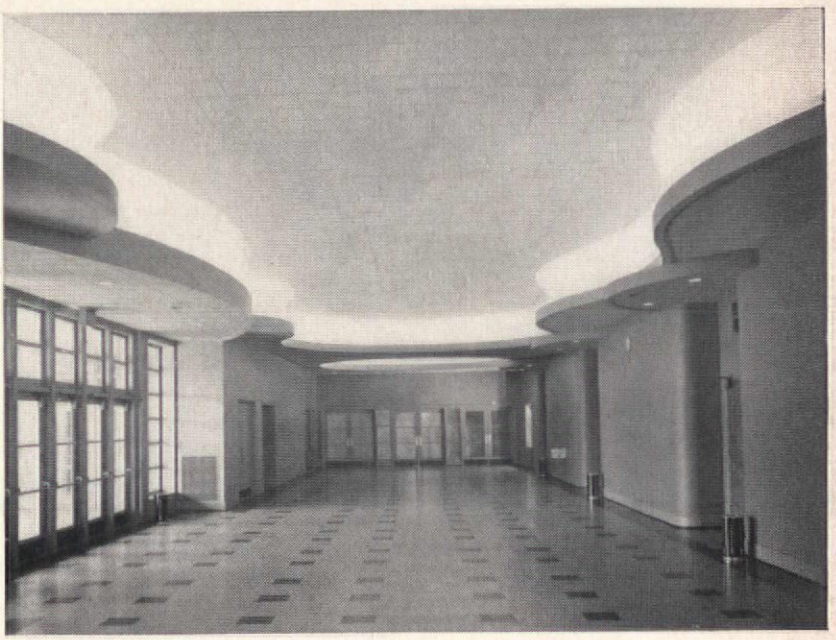
The school's quiet atmosphere is largely due to careful planning before construction. Foreseeing the possibility of serious noise problems, the architect selected sound-absorbing ceilings of Armstrong's Perforated Asbestos Board, Perforated Hardboard, and Cushiontone.

Perforated Asbestos Board and Perforated Hardboard, backed by mineral wool, are unusually efficient noise absorbers. Used in the auditorium, they were especially adaptable to the complex acoustical treatment this area required.

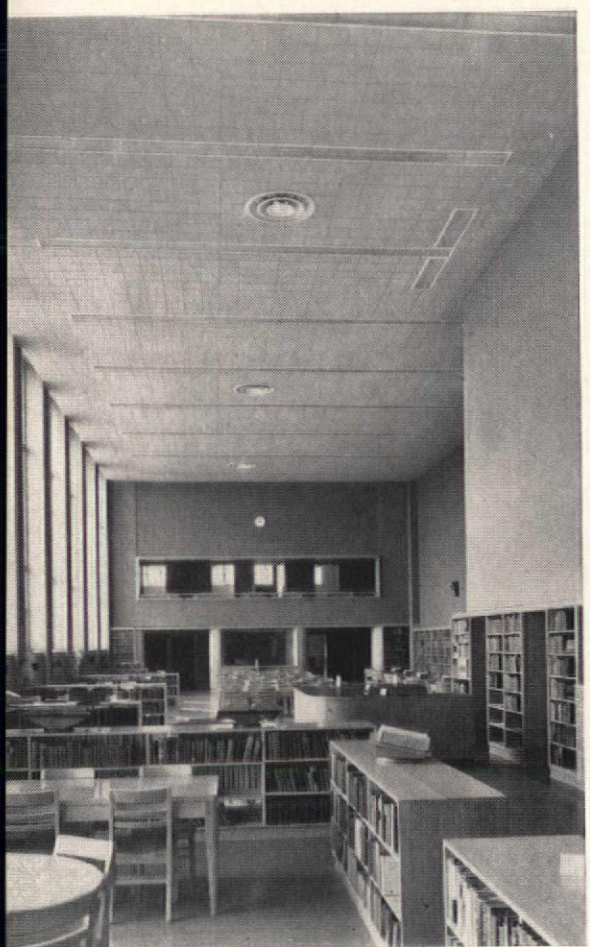
In the school's three cafeterias, band room, library, and corridors, ceilings of highly efficient Cushiontone absorb as much as 75% of the noise that strikes its surface. Surprisingly low in cost, Cushiontone is a logical selection where large areas must be sound conditioned economically.

No single material can solve every kind of sound-conditioning problem. That's why Armstrong offers a complete line of acoustical materials, each with its own special features. For full details, call your Armstrong Acoustical Contractor. For the free booklet, "How to Select an Acoustical Material," write Armstrong Cork Company, 4205 Rock Street, Lancaster, Pennsylvania.

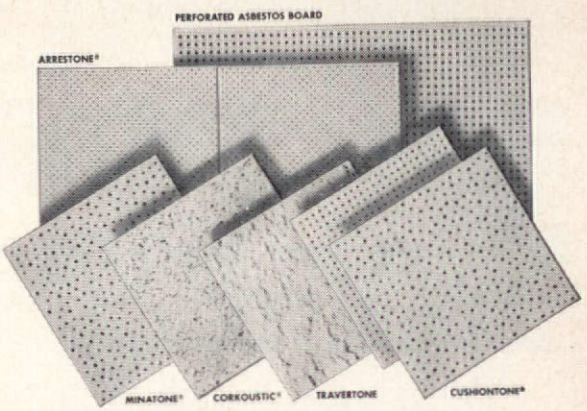
the band room, sound-absorbing Cushiontone
vers the ceiling and upper walls. This acous-
al treatment helps prevent build-up of distract-
g noise levels and provides proper acoustics.



Easily washed or repainted, Cushiontone ceilings in the corridors are simple to keep clean and new looking. A perforated, white painted fiber tile material, Cushiontone soaks up noise efficiently, economically.



Undisturbed quiet in the library is essential to con-
entration. This quiet is assured by the Cushion-
one ceiling. Easily nailed or cemented in place,
Cushiontone does not interfere with the installa-
ion of recessed lighting and air conditioning.



ARMSTRONG'S ACOUSTICAL MATERIALS

Bird's-eye view of a success story

written by architects . . . produced by Barrett

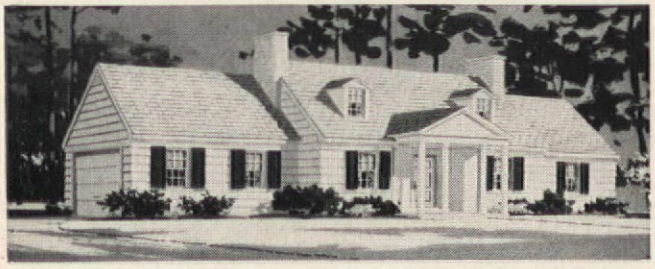
The success story of American industrial and commercial enterprise is eloquently written in the imposing skyline of the nation's business capital—New York City.

It is a success story to which Barrett has contributed an important and enduring chapter. For most of the buildings which form New York's proud parade of skyscrapers are Barrett-roofed. This outstanding preference for Barrett is shared by the country's leading architects.

The weather-tight superiority of Barrett Specification* Roofs is the result of a century's experience in the perfection of the finest roofing materials and methods. Architects can continue to select Barrett with the same confidence which the past performance of Barrett "SPECIFICATION" Roofs has inspired.

BARRETT DIVISION, Allied Chemical & Dye Corporation, 40 Rector Street, New York 6, New York, Chicago, Philadelphia, Birmingham. In Canada: Montreal.

"SHOW HOUSE," BY JULES VON STERNBERG A.I.A.—ROOF OF BARRETT DUBLECOTE* MULTI-SHINGLES*



For 100 years — the greatest name in roofing —

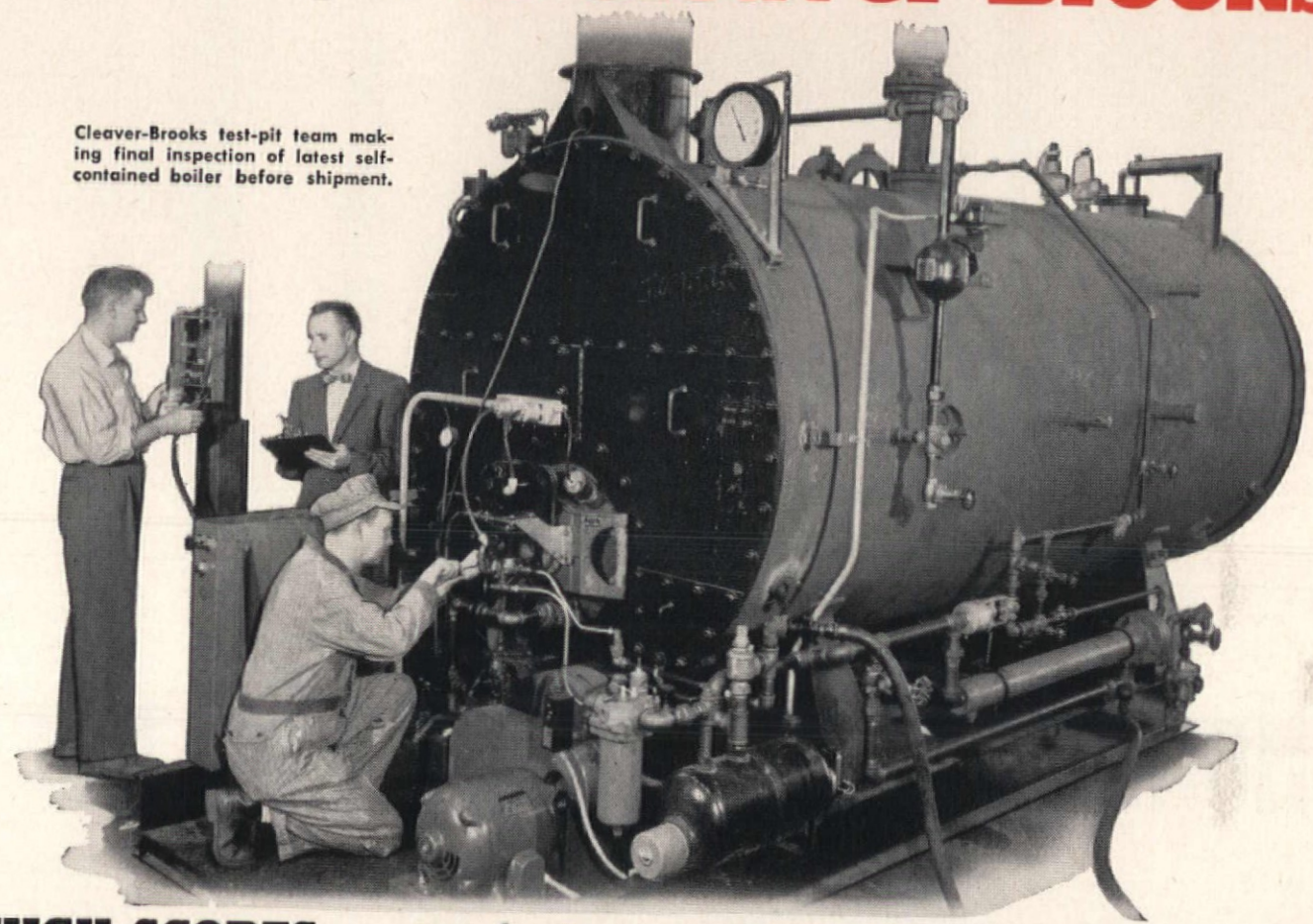
1854 1954 CENTENNIAL Barrett 100 YEARS OF EXPERIENCE

BARRETT

*Reg. U. S. Pat. Off.

their counterpart "Test-Pilots" have at Cleaver-Brooks

Cleaver-Brooks test-pit team making final inspection of latest self-contained boiler before shipment.



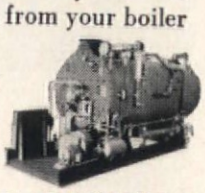
HIGH SCORES . . . on factory and on-job tests guarantee greatest return from boiler investment

When test pilots give the familiar "O.K." — that's the sign of proven performance. It's the same with boilers in the Cleaver-Brooks plant. Only after accurate, thorough inspection and testing under actual operating conditions do boilers get the final "O.K." from experienced test engineers. That's why you get guaranteed 80% efficiency from your Cleaver-Brooks boiler when firing with oil.

A record of this test is available to every buyer on request. In fact, you as a buyer, consultant, or contractor are invited to witness the actual test on your Cleaver-Brooks boiler before shipment.

And further, Cleaver-Brooks boilers are placed in operation at the job site by factory service engineers who check installation, train your operators and make complete and detailed field tests.

So, when you buy a boiler, insist on factory tests as well as field service tests by qualified engineers. There is no better way of insuring yourself of the very best value money can buy and the greatest return from your boiler investment. Look to Cleaver-Brooks, the leader in the "Packaged" Boiler field for two decades. Write today for latest Catalog AD-100.



Available for oil, gas and combination oil/gas firing.

CLEAVER-BROOKS COMPANY
Dept. F, 334 E. Keefe Ave.
Milwaukee 12, Wisconsin, U.S.A.

Cleaver-Brooks
Originators of the Self-Contained Boiler

BOILERS — STEAM OR HOT WATER — FOR HEATING AND PROCESSING IN SIZES FROM 15 TO 500 HP, 15 TO 250 PSI

Homeward bound...at 60 per!

● Talk about tests . . . here's a real measure of Von Duprin quality and performance! In constant use thousands of times a day and subject to the roughest kind of treatment . . . yet giving unfailing service in schools and colleges across the country, day after day, year in and year out. Many Von Duprin Exit Devices have been in operation for more than 40 years, requiring only normal maintenance in all that time.

In buildings you design, remodel or equip, always insist on Von Duprin Exit Devices . . . a complete range of styles, models and auxiliary items to meet any installation requirement. For complete information and expert counsel, call in your Von Duprin "Exit Specialist" or write direct to the factory.

VONNEGUT HARDWARE CO., VON DUPRIN DIVISION · 402 W. MARYLAND, INDIANAPOLIS 9, INDIANA

Von Duprin

Fire and Panic Exit Devices

FOR "THE SAFE WAY OUT!"

old

Milton L. Grigg, FAIA, Architect — **R. E. Lee & Son, Inc.** General Contractors

An important feature of the restoration of Monticello, home and monument of Thomas Jefferson, is the thorough treatment of all exterior masonry with a silicone water repellent.

DARACONE MADE BY DEWEY & ALMY; APPLIED BY BRISK WATERPROOFING CO., INC.

or

new

Alden B. Dow, AIA, Architect — **Arvo Nurmi,** Painting Contractor

Silicone treatment protects the entire masonry walls of this modern woodland residence exposed to high humidity, rain, and sub-zero weather.

WATER REPELLENT, TRUSCON'S SUPER POR SEAL WITH SILICONE.

A water repellent treatment made with

Dow Corning Silicones

preserves the beauty, cuts maintenance costs

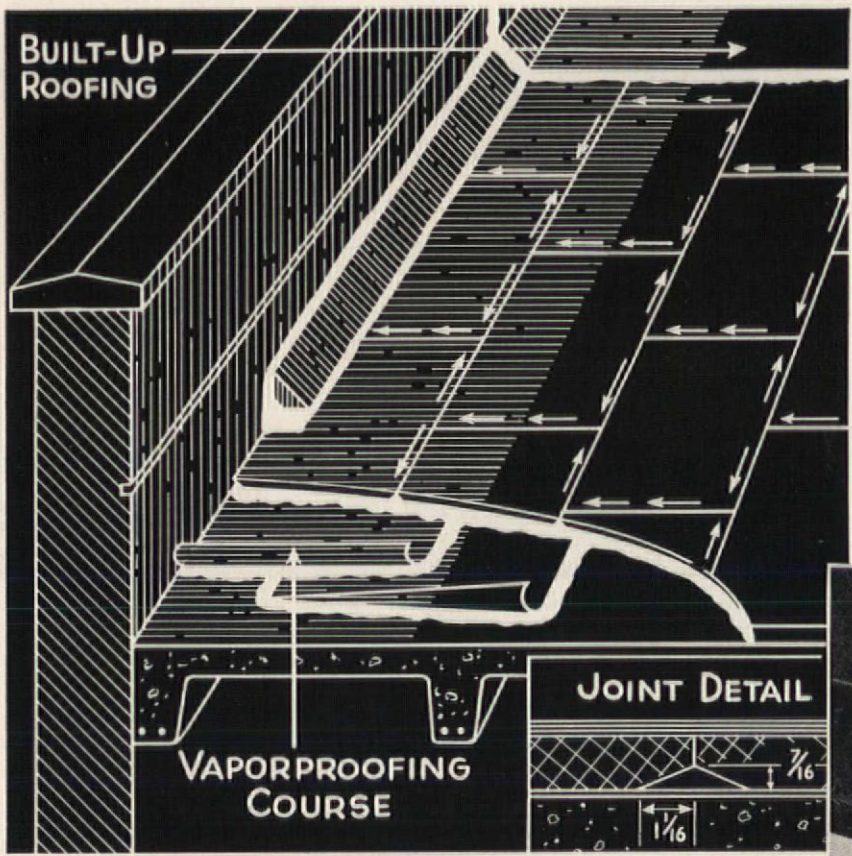
On new construction or restorations, leading architects agree: above grade masonry walls are made more weatherproof, and retain their original beauty longer when treated with water repellents made with Dow Corning Silicones. Completely invisible and non-plugging, silicones do not change the color or porosity of treated surfaces. Water washes dirt off, not into, the surface. Staining, streaking, spalling and efflorescence are minimized or eliminated entirely. And the treatment costs very little; remains effective for years.

Dow Corning silicone-based water repellents are now available from formulators and their distributors in every part of the country. Write Dept. DD-17, for more information and a list of suppliers. Dow Corning Corporation, Midland, Mich.

DOW CORNING SILICONES

EXCLUSIVE NEW CHANNELING

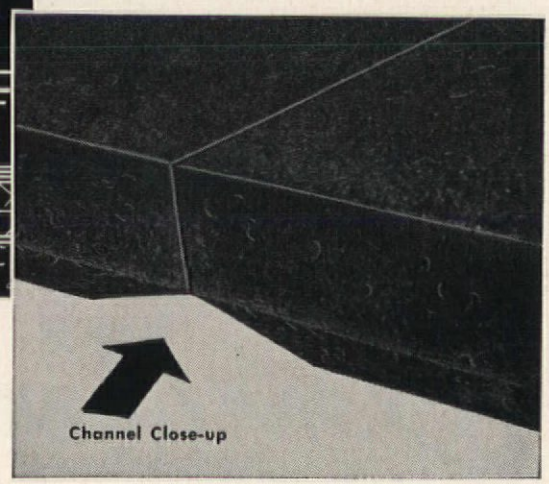
has no equal in guarding against



1. Blistering

2. Separation of felt and insulation

This shows how Celotex Channel-Seal Roof Insulation prevents build-up of high-pressure air pockets. Pressures due to temperature differences are constantly being equalized by movement of air through the channels. This channeling principle of roof protection has been proved effective by years of use on jobs of every type and size.



Celotex Channel-Seal Roof Insulation gives Positive Protection!

Installed, Celotex Channel-Seal Roof Insulation forms a network of channels that permit free circulation of air beneath roof surface. In this way, an *extra margin* of safety against costly roof damage is provided. These built-in "safety releases" equalize pressure of air trapped in the roof, give protection found in no ordinary roof insulation!

Trapped Air Finds Escape

Each piece of Channel-Seal has bevels 7/16" high by 1-1/16" wide on all bottom edges. When units are laid on the deck, these bevels form interconnecting channels across the entire roof.

High pressure areas, building up from rising surface temperatures, are relieved by air and vapor movement through the channels. This equalizes and reduces pressure—minimizes the danger of blistering, or separation of felt from insulation!

Celotex Channel-Seal Roof Insulation is made of a low density board of high insulating efficiency. It comes in a range of thicknesses to meet the specific insulation requirements of each job. Both sides, all edges asphalt coated for extra moisture protection in storage and on the job.

Low-Cost, Quickly Applied

Light and easy to handle, yet remarkably rigid and tough, Channel-Seal is low in both initial and applied cost. Resists damage from job handling. Quick, easy to apply. Smooth surface assures positive bond to both roof deck and roofing felt.

Insist on genuine Celotex Channel-Seal . . . the only roof insulation made of tougher, stronger, long Louisiana cane fibers—and protected by the patented Ferox® Process from dry rot and termite attack. Write now for full data on Channel-Seal and other types of job-proved Celotex Roof Insulation.

Just address The Celotex Corporation, Dept. AR-54, 120 S. La Salle St., Chicago.

For a better roof... specify genuine

THE CELOTEX CORPORATION
120 SOUTH LA SALLE STREET • CHICAGO 3, ILLINOIS

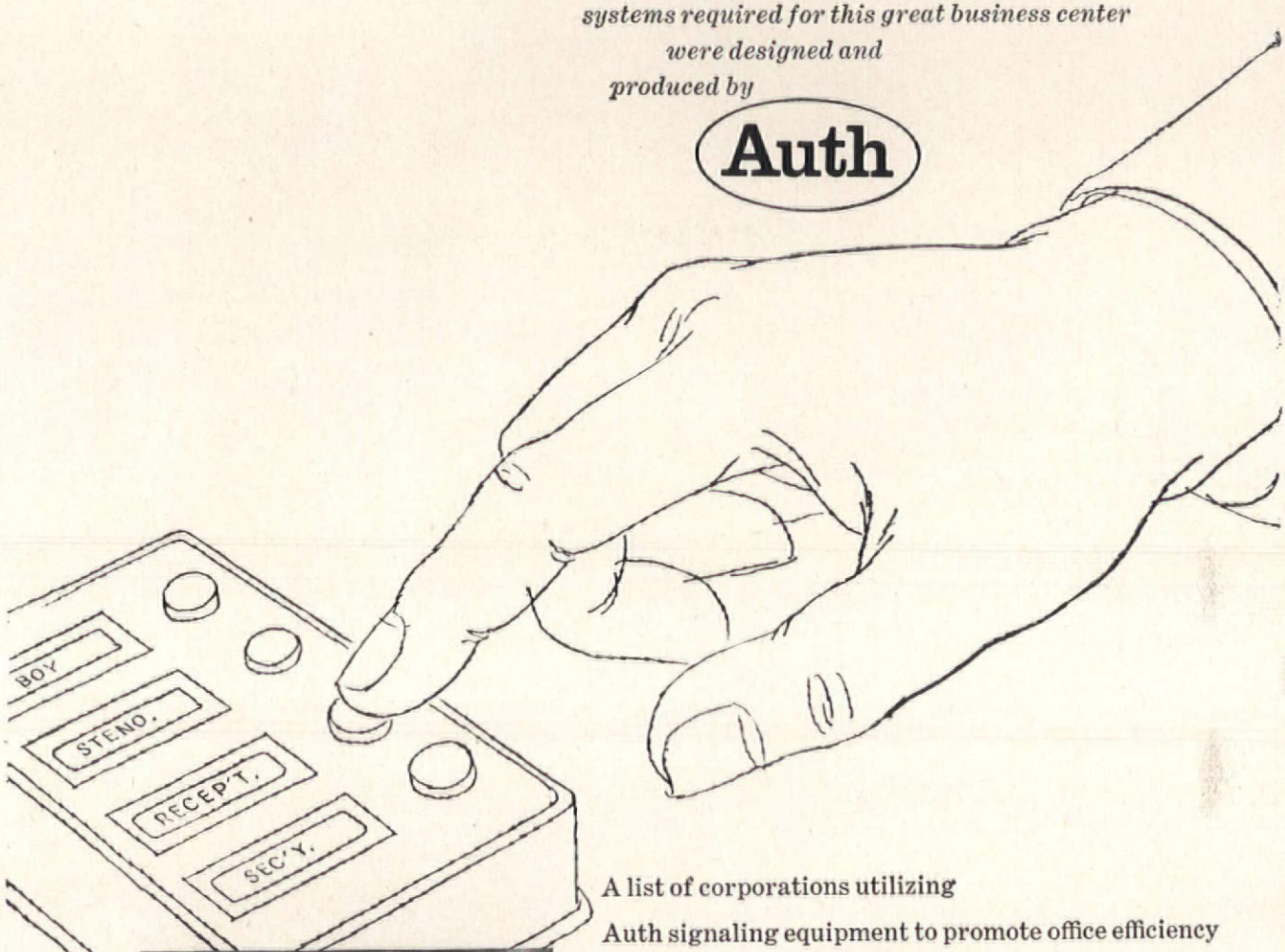
CELOTEX
REG. U. S. PAT. OFF.
ROOF INSULATION

... and for the offices of

LEVER HOUSE, NEW YORK

the signal, protection and communication systems required for this great business center were designed and produced by

Auth



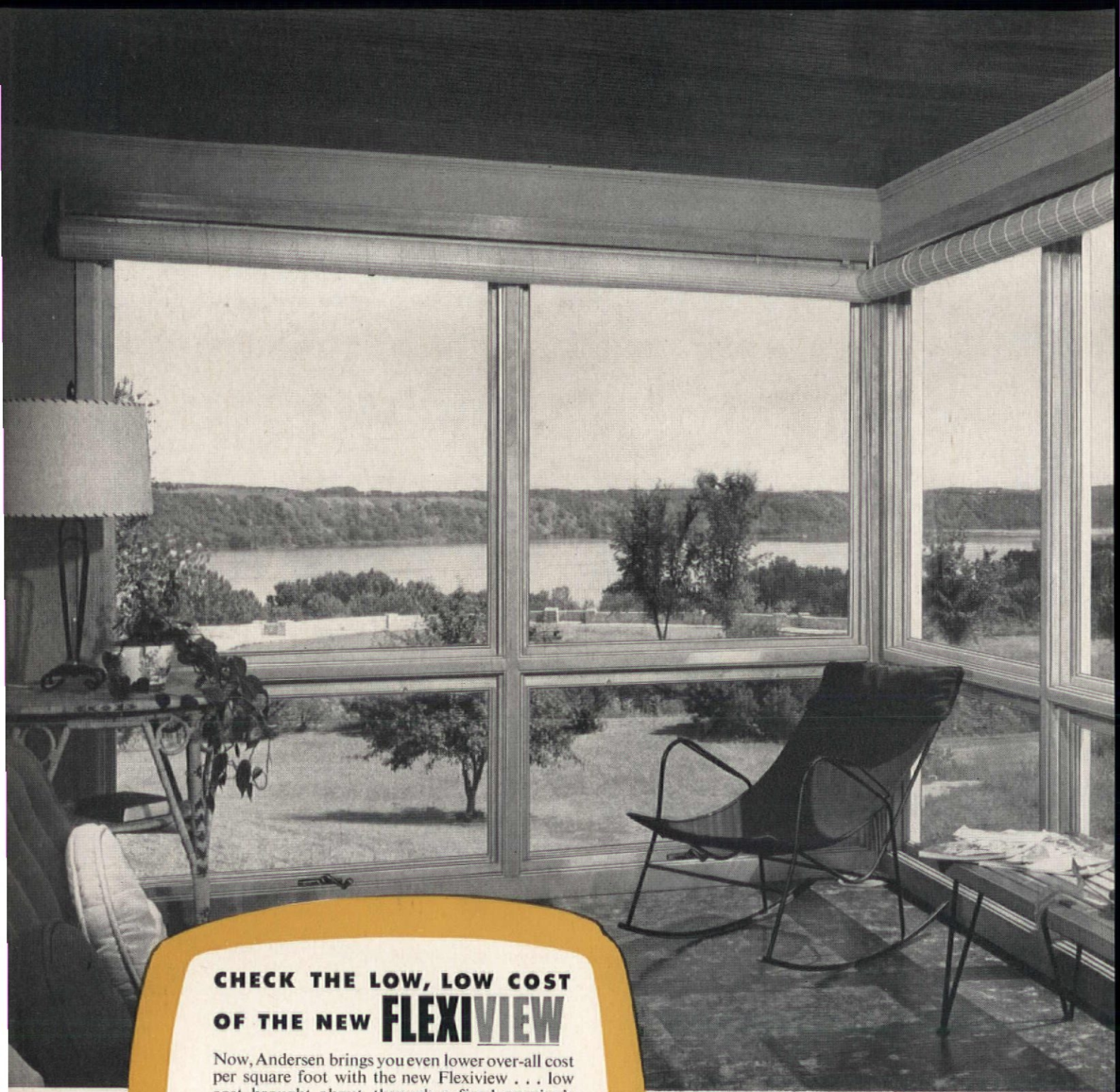
A list of corporations utilizing Auth signaling equipment to promote office efficiency would read like "Who's Who in Industry".

For over 62 years Auth Buzzer, Annunciator, and Inter-Communicating Telephone Systems have provided simple and inexpensive means of inter-office communication suitable for any size office.

For information write to *Auth Electric Company, Inc., Long Island City 1, New York.*

SIGNALING, TIME AND COMMUNICATION SYSTEMS FOR HOSPITALS, SCHOOLS, HOUSING, INDUSTRY AND SHIPS

Auth SINCE 1892



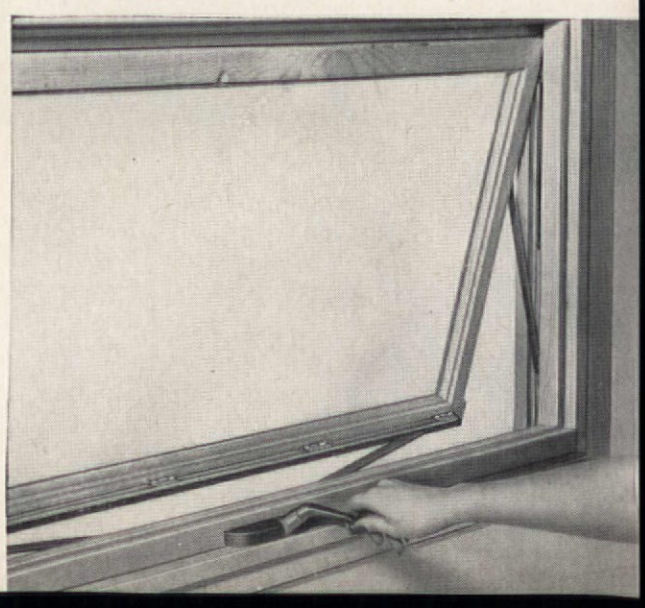
CHECK THE LOW, LOW COST OF THE NEW FLEXIVIEW

Now, Andersen brings you even lower over-all cost per square foot with the new Flexiview . . . low cost brought about through a fixed opening's savings on screen and hardware. Glazed with Andersen Double Insulating Glass, it offers an economical solution to the double glazing problem.

Flexiview units combine with either fixed or ventilating Flexivent windows to form WINDOWALLS in endless variety. They make possible the picture window combinations that complete the versatile Flexivent line.

The Flexivent line, already a builder favorite for its low installation cost coupled with high quality, is now even more versatile, an even greater window value!

Write for Detail Catalog or Tracing Detail File, or see Sweet's files for specification data. WINDOWALLS sold by established millwork dealers throughout the United States including the West Coast.



How much hinge does a door need?

It depends upon door weight and frequency of use

When the door is heavier than the conventional type, or is equipped with a door closer, or is a high-frequency door (over 400 times daily) in the entrance to a department store, office building, theater, school, or other public building, it should hang on the finest heavy-duty hinges available.

What are the finest heavy-duty hinges?

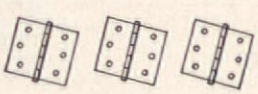
Stanley full-jeweled ball-bearing hinges*

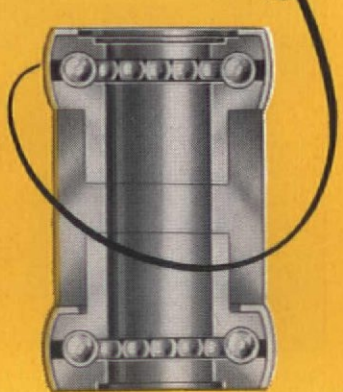
The Stanley full-jeweled ball-bearing hinge is the only hinge that takes care of *all* wear solely through ball bearings. It is made so that both lateral and vertical stress are transmitted to the bearings — there is no direct pressure on the pin. The cutaway view shows how the specially built-up raceways shoulder the load to the bearings.

What does this mean to a building?

It means hinges that won't wear out

They are moisture proof, dust proof, and squeak proof. They last for the life of the building *and* they COST NO MORE. When you specify hinges, specify Stanley and where needed specify Stanley full-jeweled ball-bearing hinges.

REMEMBER  **THREE HINGES TO A DOOR**



STANLEY® Hardware

A Division of The Stanley Works, New Britain, Connecticut

**Reg. U.S. Pat. Off.*

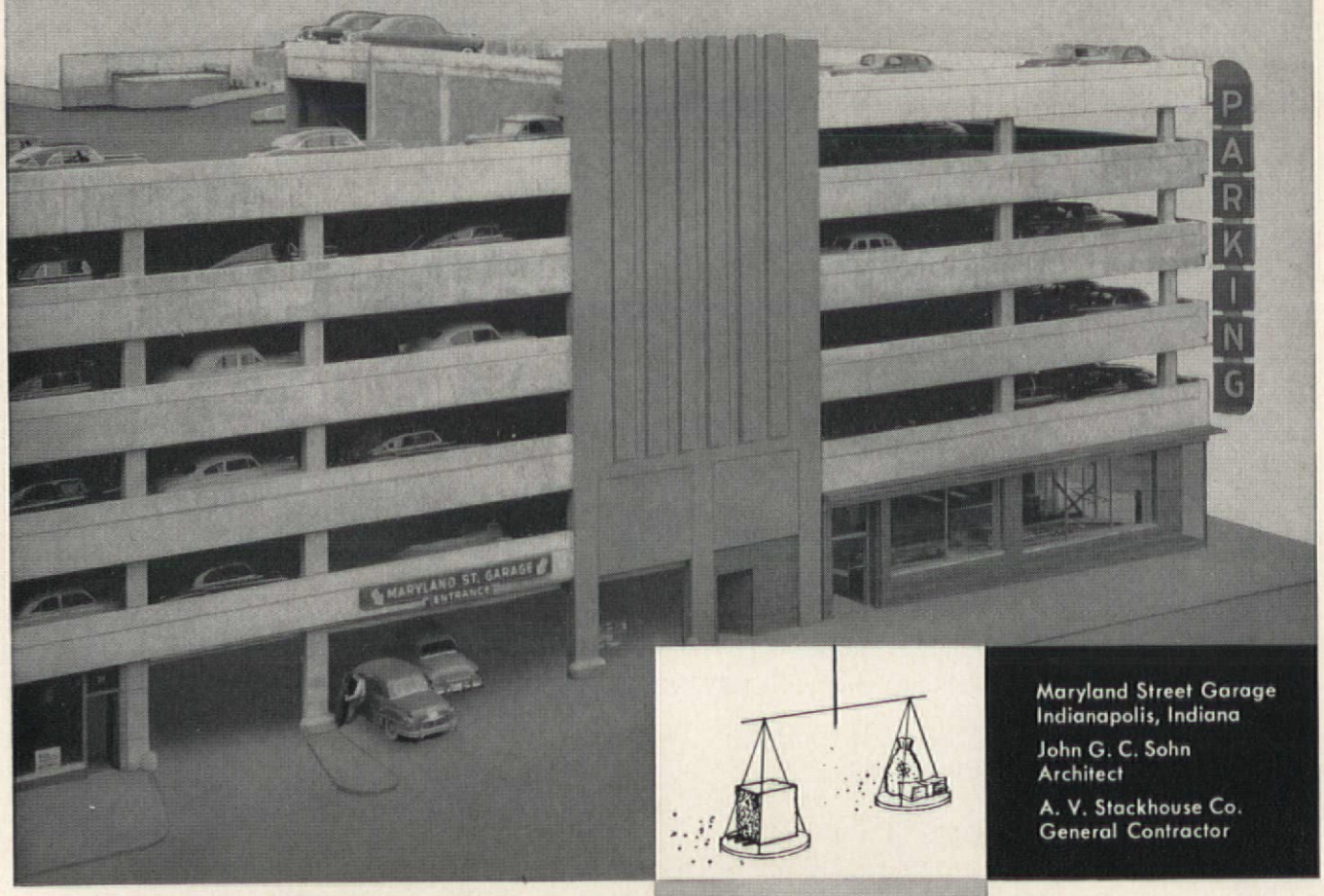
TOOLS • ELECTRIC TOOLS • STEEL STRAPPING • STEEL

For this modern parking garage, reinforced concrete was chosen because of its basic economy. Reinforced concrete provided a strong, rigid, vibration-resisting structure . . . *at a low cost.* Since no painting is needed in this open, reinforced concrete structure, future maintenance will be low.

More and more architects and engineers are turning to reinforced concrete structures because reinforced concrete is less costly. Reinforced concrete goes up faster, too, and is inherently firesafe. It offers rugged strength that is highly resistant to wind, shock, and quakes. Furthermore, it permits great flexibility of design, and materials are readily available from local sources. On your next job . . . design for reinforced concrete.

The architect says...

"ONLY REINFORCED CONCRETE could be used economically"



Maryland Street Garage
Indianapolis, Indiana

John G. C. Sohn
Architect

A. V. Stackhouse Co.
General Contractor

Compare...

YOU'LL SAVE WITH REINFORCED CONCRETE

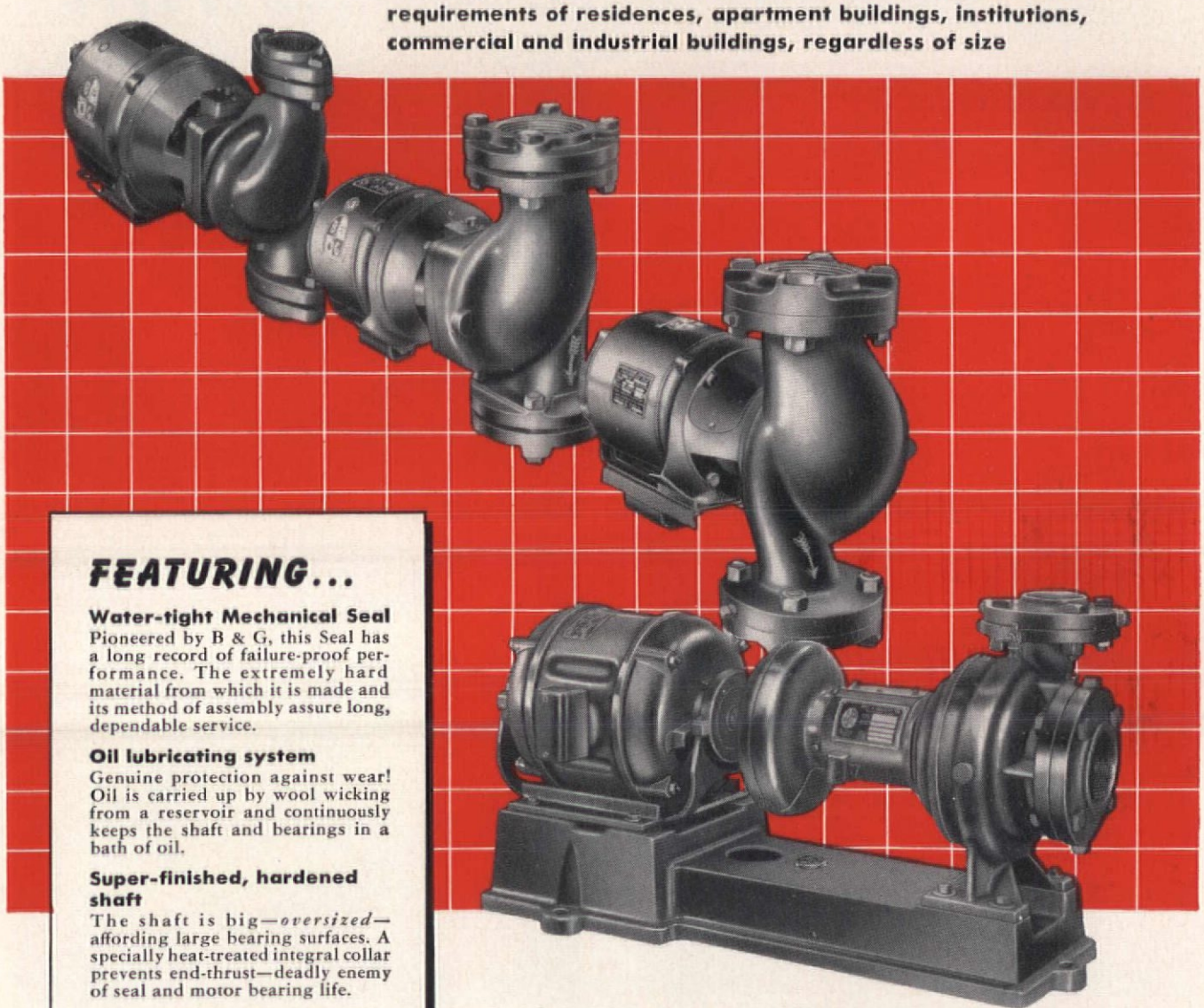
38 South Dearborn Street • Chicago 3, Illinois

CONCRETE REINFORCING STEEL INSTITUTE

FIRST...AND ONLY

COMPLETE LINE OF HOT WATER HEATING PUMPS

Offering a range of heads and capacities which meet the circulation requirements of residences, apartment buildings, institutions, commercial and industrial buildings, regardless of size



FEATURING...

Water-tight Mechanical Seal
Pioneered by B & G, this Seal has a long record of failure-proof performance. The extremely hard material from which it is made and its method of assembly assure long, dependable service.

Oil lubricating system
Genuine protection against wear! Oil is carried up by wool wicking from a reservoir and continuously keeps the shaft and bearings in a bath of oil.

Super-finished, hardened shaft
The shaft is big—*oversized*—affording large bearing surfaces. A specially heat-treated integral collar prevents end-thrust—deadly enemy of seal and motor bearing life.

Quiet, spring-type coupler
The arms of the B & G Coupler are held together with springs—a design which dampens vibration and noise...so successfully it is used on all B & G Heating Pumps up to 25 H.P.

Special motors
Motors are either built in the B & G plant itself or to rigid specifications. B & G Boosters up to 1¼" have smaller than usual motors—but have exactly the same capacity as previously. This motor is the first specifically designed to match the reduced size of modern boilers.

Forced hot water heating systems have expanded in application to buildings of every size and function...B & G Boosters and Universal Pumps have likewise expanded to satisfy all possible circulation requirements.

These pumps are designed and built specifically for forced hot water heating systems. In every detail, they are constructed to assure three things: First, quietness of operation...second, dependable, trouble-free performance...third, long life.

How successfully B & G Pumps achieve these goals is evidenced by the fact that more are sold than all other hot water heating pumps combined! For full information send for the B & G Catalog.

BELL & GOSSETT
COMPANY
Dept. DK-32, Morton Grove, Illinois
Canadian Licensee: S. A. Armstrong, Ltd., 1400 O'Connor Drive, Toronto, Canada

MR. ARCHITECT:

if you recommend quality . . . . you'll recommend **ACTIVE**

Pictured here are some of the many models available. Active sinks are designed to fit your needs in space, capacity and beauty.

All Active sinks are seamless in construction, designed to give easy-cleaning contours, made of the finest materials available and priced to fit any home.

ACTIVE QUALITY WARE sinks are coated with Acid Resisting White Titanium Porcelain Enamel on pressed steel.

ACTIVE QUALITY WARE STAINLESS STEEL Sinks are made of 18–8 Type 302 Nickel Bearing Stainless Steel and are the finest ever-enduring sinks money can buy!

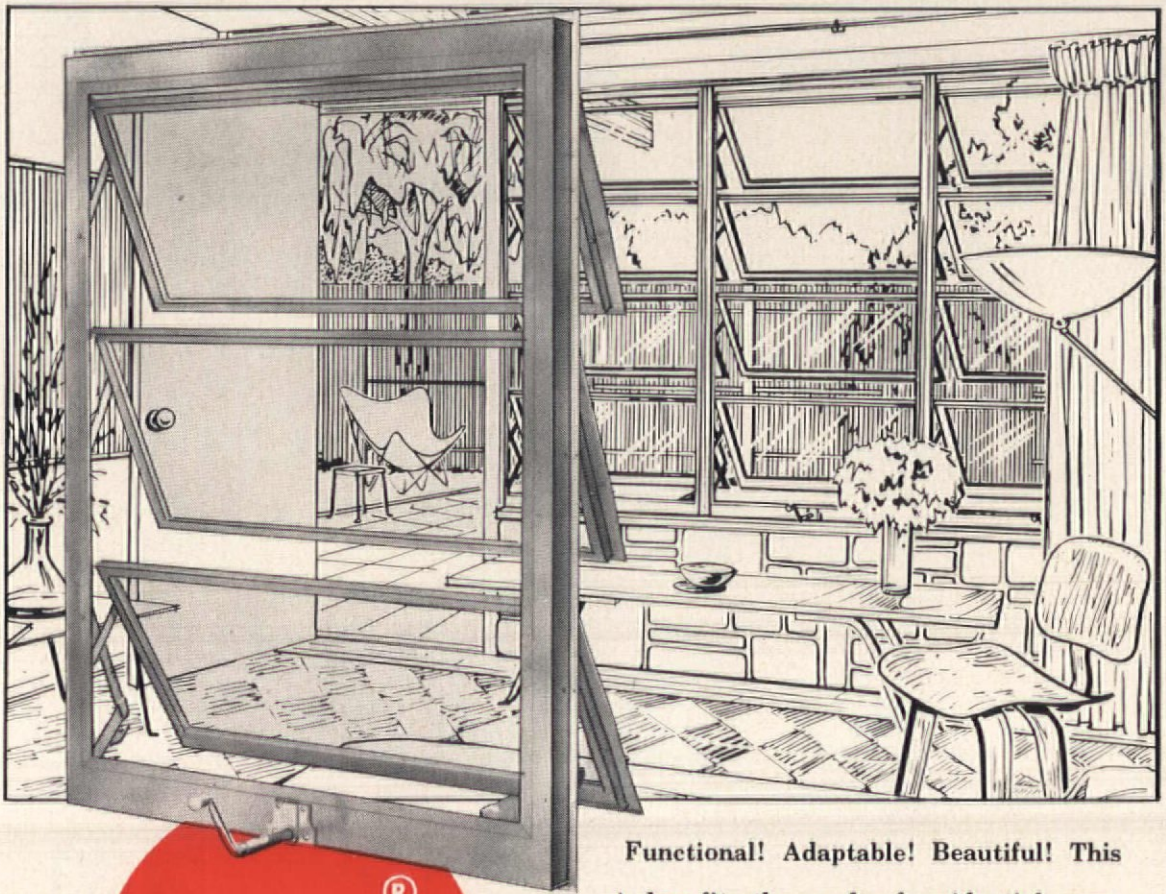
WRITE FOR COPY OF OUR NEW CATALOG

WHATEVER YOUR NEEDS MAY BE . . . CHECK WITH **ACTIVE!**

ACTIVE QUALITY WARE DIV. OF: ACTIVE TOOL & MFG. CO.

888 CLAIRPOINTE • DETROIT 15, MICHIGAN

This Window Wins Architectural Plaudits



Ualco®
U-AL-CO

ALUMINUM AWNING WINDOWS

Functional! Adaptable! Beautiful! This window fits the needs of residential, commercial and institutional building.

Modern as tomorrow—with slim, horizontal lines of extra-heavy extruded aluminum. Stays beautiful through all the tomorrows because Ualco's exclusive finishing process preserves its satin-smooth beauty forever! Can't rust, rot, warp and never need painting! Will never require upkeep expenses!

PRECISION-ENGINEERED! ★ Exclusive Strip-Proof completely housed Operator has no separate locking device! ★ Integral fin takes brick fin and fin trim! ★ Jiffy-Quick Sill Clips slide in channel from each side; locate as many as wanted, where wanted. ★ Weatherstripped completely with Koroseal! ★ All vents open up to 90 degrees for 100% ventilation; or bottom vent, only, opens for night ventilation! ★ Easily cleaned from the inside!

ASK ABOUT our Engineering Planning Service, designed to assist architects, engineers and contractors in making "take-offs" and solving window problems.

SEE OUR CATALOG IN SWEET'S ARCHITECTURAL FILE 16A/UN OR WRITE US FOR COMPLETE INFORMATION

SOUTHERN SASH SALES & SUPPLY CO., INC.
SHEFFIELD, ALABAMA

Ualco
U-AL-CO

World's Largest Manufacturer of Aluminum Windows

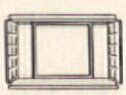
AWNING

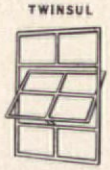
CASEMENT

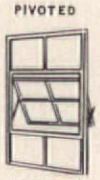
JALOUSIE

DOUBLE HUNG

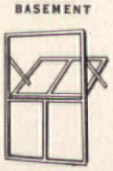
HOPPER


TWINSUL


PIVOTED


PROJECTED

BASEMENT


UTILITY

THE COMPLETE LINE

From the ageless mineral

ASBESTOS . . .

JOHNS-MANVILLE JM PRODUCTS

comes

the smooth-surfaced built-up roof—FLEXSTONE*

which provides a flexible covering of stone

Because they are made of the mineral, asbestos, the felts of a Johns-Manville Flexstone Built-Up Roof assure lasting service and protection. They will not support combustion. They effectively resist the drying-out action of the sun . . . won't rot, are weatherproof and need no periodic coating.

Flexstone Built-Up Roofs are smooth-surfaced . . . permit thorough drainage . . . make damage easy to locate and repair. These superior advantages are also provided by the J-M Flexstone Special Built-Up Roof . . . developed especially for dead-level decks.

For complete information about Flexstone Roofs and J-M Asbestile* Flashing System that provides thorough water tightness and effective treatment for critical roof areas, see your Approved Johns-Manville Contractor. He's listed in the Classified Section of the telephone directory. Or send for folder BU-51A. Write Johns-Manville, Box 158, New York 16, N. Y. In Canada, write 199 Bay St., Toronto 1, Ont.

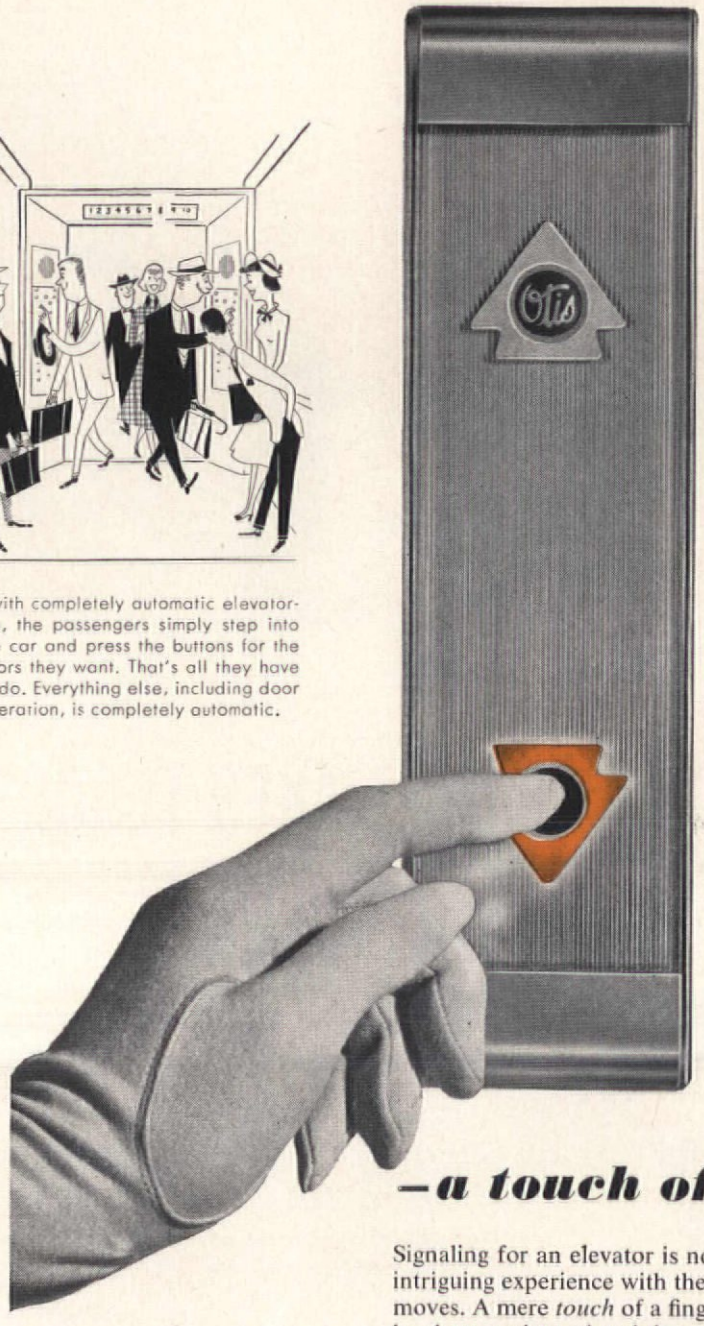
*Reg. U. S. Pat. Off.

Johns-Manville FLEXSTONE* Built-Up Roofs

ASBESTOS CORRUGATED TRANSITE* • ACOUSTICAL CEILINGS

DECORATIVE FLOORS • MOVABLE WALLS • ETC.

—with completely automatic elevatoring, the passengers simply step into the car and press the buttons for the floors they want. That's all they have to do. Everything else, including door operation, is completely automatic.



—with completely automatic elevatoring, the riders tell the elevators what to do. All calls are registered and analyzed continuously. Cars are operated as a coordinated group to match service with demand at any time of the day or night.

—a touch of independence

Signaling for an elevator is no longer a push-the-button-and-wait routine. It is an intriguing experience with the dramatic Otis electronic *touch* button. Nothing moves. A mere *touch* of a finger lights the directional arrow to show that the call has been registered and that an elevator is only seconds away.

For riders, *this touch of independence* dramatizes complete freedom of AUTOTRONIC® elevator operation. A car arrives almost instantly. The doors open. The rider enters the car. The doors close. And the car speeds on its way. All, automatically—without an operator!

For building management, *this touch of independence* dramatizes uninterrupted AUTOTRONIC elevator service; a substantial saving in operating costs for each elevator each year; and the increased prestige that faster, friendlier and completely automatic elevatoring brings to a building.

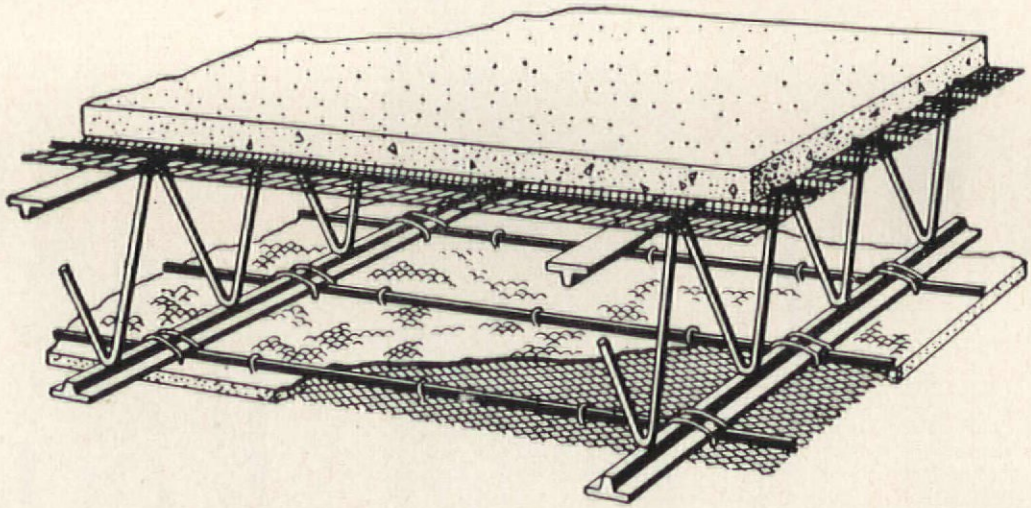
More than 175 busy buildings in the U. S. and Canada have given Otis AUTOTRONIC elevatoring an overwhelming vote of confidence—*by buying it!* Otis Elevator Company, 260 11th Avenue, New York 1, N. Y.

Otis

COMPLETELY AUTOMATIC

AUTOTRONIC

ELEVATORING



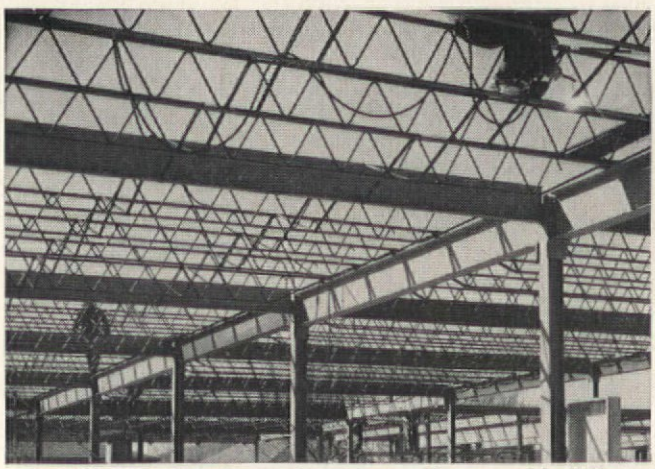
THIS TRUSCON "PACKAGE" MAKES FLOORS AND

"Clerespan"® and "O-T"® Steel Joists, Ferrobord® Steel Roofdeck, Metal Lath, and Welded Wire Fabric all available from one dependable source

● Here's low-cost, practical floor and roof construction that fits modern building ideas and techniques. You support floors and roof with Truscon "Clerespan" or "O-T" steel joists. Lay in Truscon Self-Sentering Metal Lath as base for the concrete floor. Reinforce floors with Truscon Welded Wire Fabric.

Tie Truscon Metal Lath to the underside of joists. Finish with plaster for fire-resistance.

For the roof, Truscon Ferrobord Steeldeck attaches directly to joists. Insulate to the degree required



"O-T"® STEEL JOISTS are adaptable to all types of building. Open web permits free passage of pipe and conduit, allows air passage in radiant heating systems. Write for "O-T" Open Truss Steel and Nailer Joist loading tables.

FERROBORD® STEELDECK provides interlocking units long enough to span three or more purlins. No scaffolding needed for erection; work is done from above. Can be clipped or welded to joist. Write Truscon for facts.

"CLERESPAN"® JOISTS provide clear spans up to 90-feet. They directly support slab or deck without intermediate columns, permitting unobstructed use of large floor areas. Easily installed. Available with underslung or with square ends. Write Truscon for tables of safe, uniform loads.

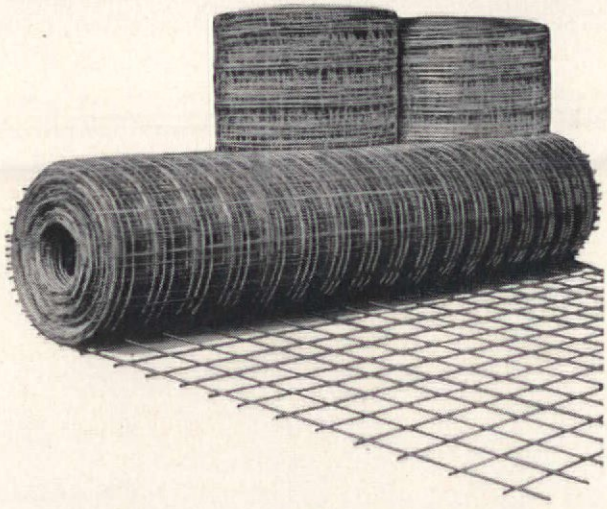
ROOFS LIGHTWEIGHT, FIRE-RESISTANT, ECONOMICAL

and add waterproofing. With this packaged system, work goes fast. Costs are moderate. All steel materials are available from one source, with deliveries keyed to building schedules. More information in Sweet's; or write Truscon for details and specifications.

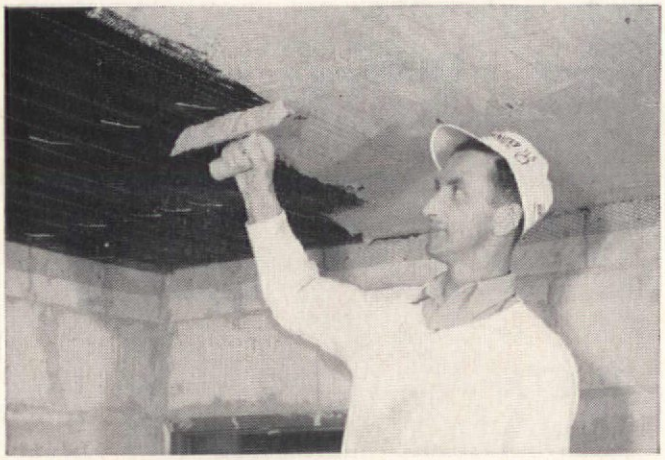
TRUSCON®

TRUSCON STEEL DIVISION
REPUBLIC STEEL
1062 ALBERT ST. • YOUNGSTOWN 1, OHIO
Export Dept.: Chrysler Building, New York 17, N.Y.

a name you can build on



WELDED WIRE FABRIC. Accurately formed; welded at each intersection. Available in warehouse stocks in easy-to-handle rolls. Order the same way you order ready-mix. Reinforcing bars, too.



TRUSCON METAL LATH. More than forty different types and accessories. Accepted by all building codes. Easy to form, easy to erect, easy to work over. In warehouse stocks. Write Truscon for detailed specifications.

Truscon Steel Division, Republic Steel
1062 Albert Street, Youngstown 1, Ohio

Please send me literature describing Truscon products for floor and roof construction. I understand there is no cost, and no obligation.

Name ..... *Title* .....

Firm .....

Address .....

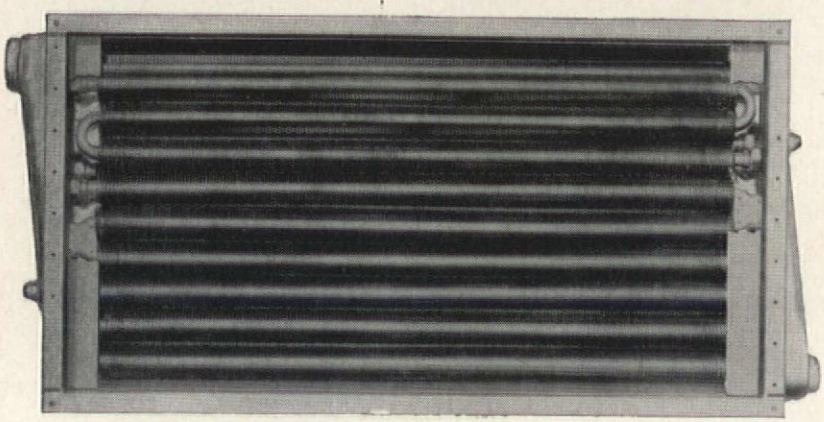
City ..... *Zone* ..... *State* .....

We Make

Extended-Surface

HEAT EXCHANGERS

Exclusively



The pioneer in the field, Aerofin has concentrated on one thing, *and one thing only* — highly efficient, easily installed, easily maintained extended-surface heat exchangers. Aerofin's design, research, engineering and production experience and facilities are unequalled anywhere.

For High Efficiency, Easy Installation, Low Maintenance and Servicing Costs . . .

Aerofin is sold only by manufacturers of fan system apparatus. List on request.

AEROFIN CORPORATION

410 South Geddes St.
SYRACUSE, N. Y.

this shopping center

Opens for business

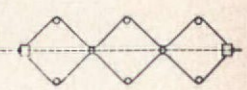
...with MODERNFOLD

Customer traffic flows easily from store to store—without leaving the building—in this Berwyn, Illinois, shopping center. Yet each individual store can lock up tight for the night, merely by closing these Modernfold folding walls. Plans for this modern shopping center were created by O. A. Keillor, president of Joseph Skorepa & Company, the builders.

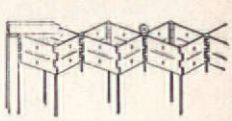
Copyrighted New Castle Products, Inc., 1954

Specify Modernfold and you specify *extra* quality—*extra* satisfaction, made possible by:

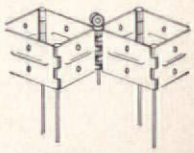
★ Modernfold's exclusive *centerline* design—same number, same type of balanced pantograph hinges—both top and bottom—for greater strength.



★ Two—not just one—vertical steel rods to each hinge section, for greater rigidity.



★ Trolleys at hinge intersection—along the centerline—for smoother, torque-free operation.



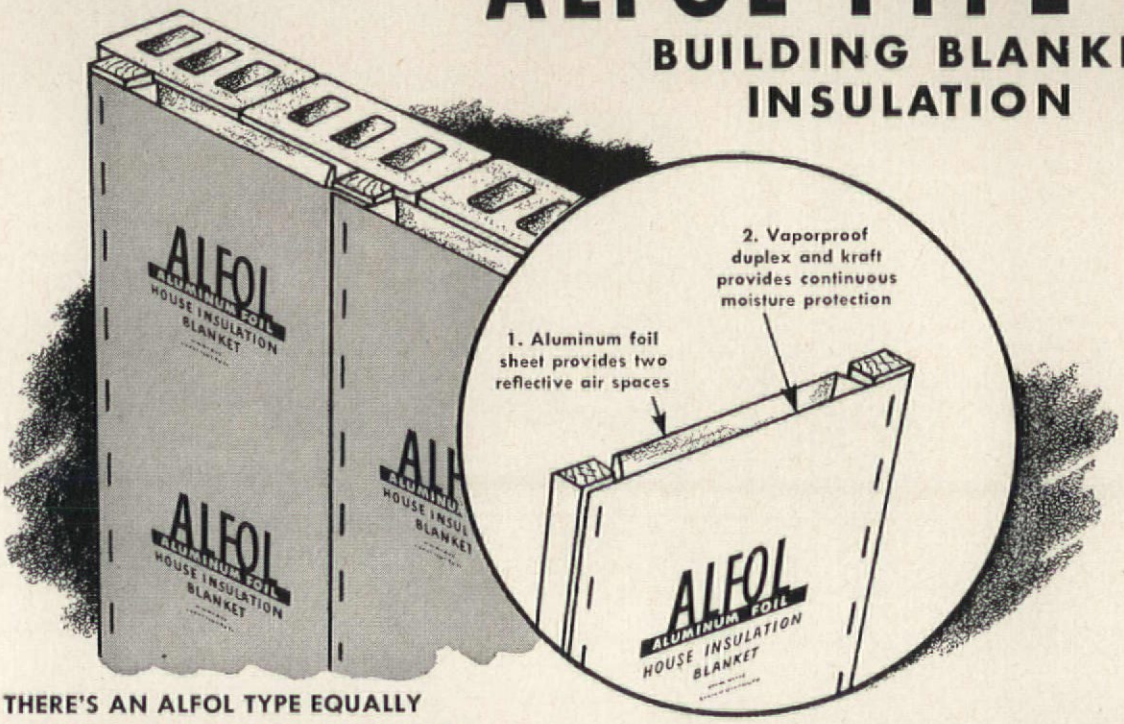
Get full details from your Modernfold distributor (under "doors" in city classified directories) or write New Castle Products, Inc., P. O. Box 882, New Castle, Indiana.

In Canada: New Castle Products, Ltd., Montreal 6

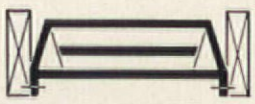
Over an inch of Insulating Efficiency plus a positive vapor barrier—all in the 7/8 inch space of a furred out Masonry Wall!

ALFOL TYPE 1A

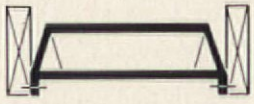
BUILDING BLANKET INSULATION



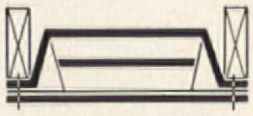
THERE'S AN ALFOL TYPE EQUALLY EFFICIENT FOR EVERY INSULATION NEED



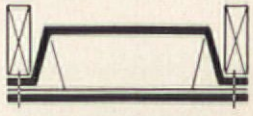
ALFOL Type IV—Four reflective air spaces for the utmost in thermal efficiency.



ALFOL Type III—Three reflective air spaces—ideal for crawl spaces, unfinished ceilings.



ALFOL Type II—Three reflective air spaces—designed to be applied across stud *faces*.



ALFOL Type I—Two reflective air spaces—in mild climates at lowest cost and top efficiency.

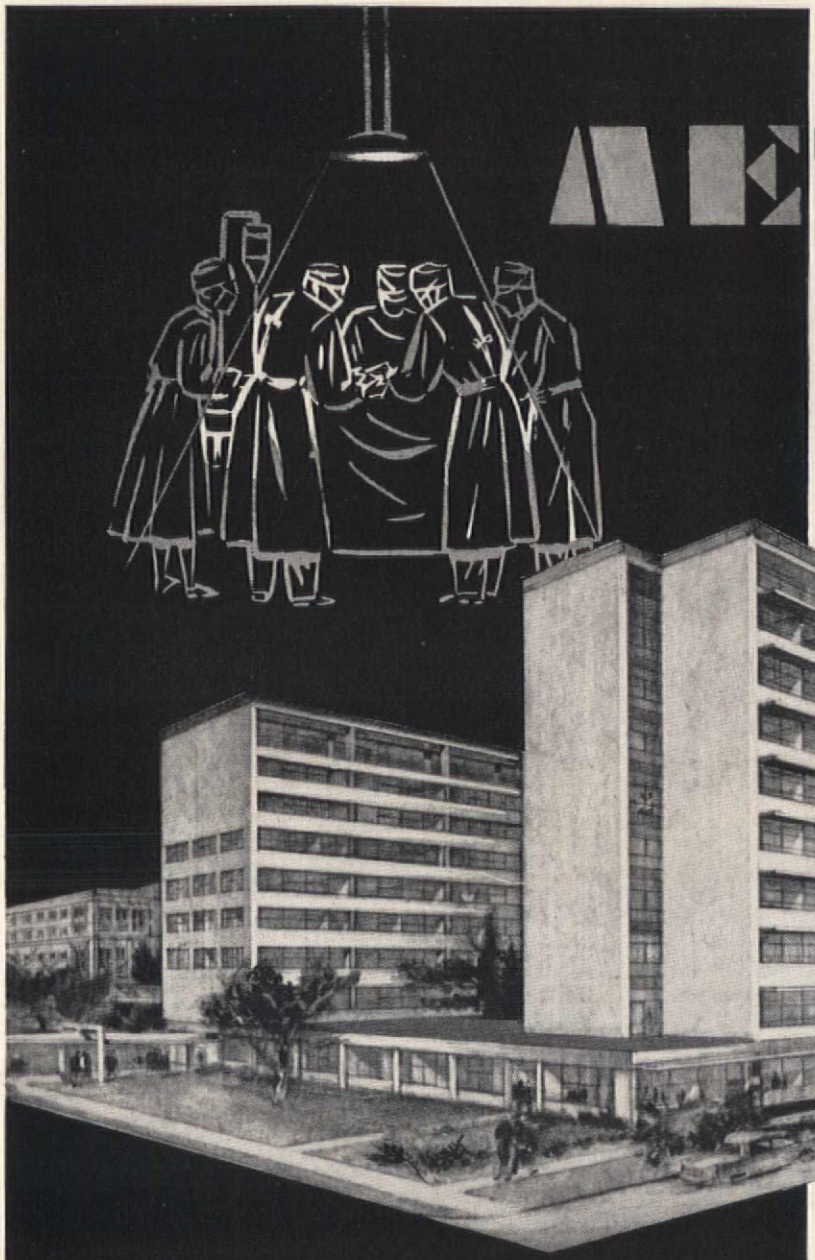
Alfol Type 1A Insulation is specially made for standard masonry construction. It is the only insulation that provides over an inch of insulation value plus a positive, continuous vapor barrier in the usual 7/8" clearance available in 1" x 2" furred masonry walls. Refurring expense is eliminated!

Type 1A has proved effective in hundreds of installations in every section of the country. When applied the pure aluminum foil automatically "pops out" to form two reflective air spaces equal in thermal value to more than an inch of insulation. The heavy vaporproof duplex and kraft backing by which Alfol is applied across the face of the furring assures a positive, continuous vapor barrier.

Write for free literature and complete details — Address Dept. AR-1.

ALFOL
BUILDING BLANKET INSULATION
"FIRST IN REFLECTIVE INSULATION"

REFLECTAL CORPORATION
A Subsidiary of Borg-Warner
155 EAST 44th ST. NEW YORK 17, N. Y.



AETNA

ALL DOWN THE HOLLOW METAL LINE

. . . from doors to door frames to case work to partitions!

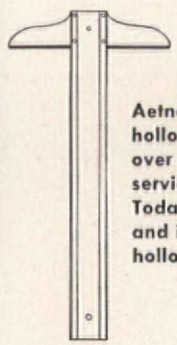
CONEY ISLAND NEW GENERAL HOSPITAL
Architect: Andrew J. Thomas — Associate Architects: Katz, Waisman, Blumenkrenz, Stein, Weber — Department of Public Works, New York City: Albert Bauer, Sr., Architect of Hospitals; Alexander Beresniakoff, Architect in Charge — General Contractors: Gerace and Castagna

The CONEY ISLAND NEW GENERAL HOSPITAL is a good example of what AETNA and its divisions can do for a building, hollow-metal wise. For this project:

Aetna Steel Products Corporation is supplying all hollow metal doors and door frames;

Arnot-Jamestown, division of Aetna Steel, is supplying all laboratory and general hospital case work and counters;

E. J. Boyle, division of Aetna Steel, is supplying AETNAWALL office partitions throughout.



Aetna versatility and leadership in hollow metal has developed over a period of 51 years of service to the building supply field. Today, you can look to AETNA and its divisions for ALL your hollow metal needs.

AETNA STEEL PRODUCTS CORPORATION
730 FIFTH AVENUE, NEW YORK 19, N. Y.
WORLD'S LARGEST MANUFACTURER OF HOLLOW METAL PRODUCTS

PRODUCERS OF: The new Arnot Partition-ettes; Arnot Functional Office Furniture; Hospital and Laboratory Equipment; Under-Counter Bank Equipment; Aetna Steel Doors and Frames; Kahr Bearings; Boyle Metal Office Partitions (Aetnawall).

As never before...

Today your clients are aware of the disastrous and far-reaching effects of a major industrial fire. More and more this new attitude toward firesafety is placing the burden of responsibility on you.

Industrial management has seen how a serious fire not only destroys a plant, but can also reach out to cripple, in one way or another, many related plants. Your clients need wise guidance in seeing to it that their present and future structures are fully protected from the ravages of fire.

Fortunately, the particular type of information and assistance you need is within easy reach. An expert C-O-TWO Fire Protection Engineer is ready and willing to help you with any or all industrial fire hazard problems.

There is a personal sense of responsibility inherent with C-O-TWO Fire Protection Engineers that assures fully adequate firesafety . . . a definite plus in your behalf. Whether it's fire detecting or fire extinguishing . . . portables or built-in systems . . . C-O-TWO means top quality backed by experienced engineering that results in operating superiority for your clients at all times.

Any qualified architect or consulting engineer working on industrial construction is welcome to utilize the benefits of our extensive fire protection engineering experience, as well as obtain a free copy of our comprehensive brochure entitled, "C-O-TWO Fire Protection Equipment (Code A/CE)" by writing on his letterhead. Get the facts today!

C-O-TWO

MANUFACTURERS OF APPROVED FIRE PROTECTION EQUIPMENT

Squeez-Grip Carbon Dioxide Type Fire Extinguishers
Dry Chemical Type Fire Extinguishers
Built-In High Pressure and Low Pressure Carbon Dioxide Type Fire Extinguishing Systems
Built-In Smoke and Heat Fire Detecting Systems

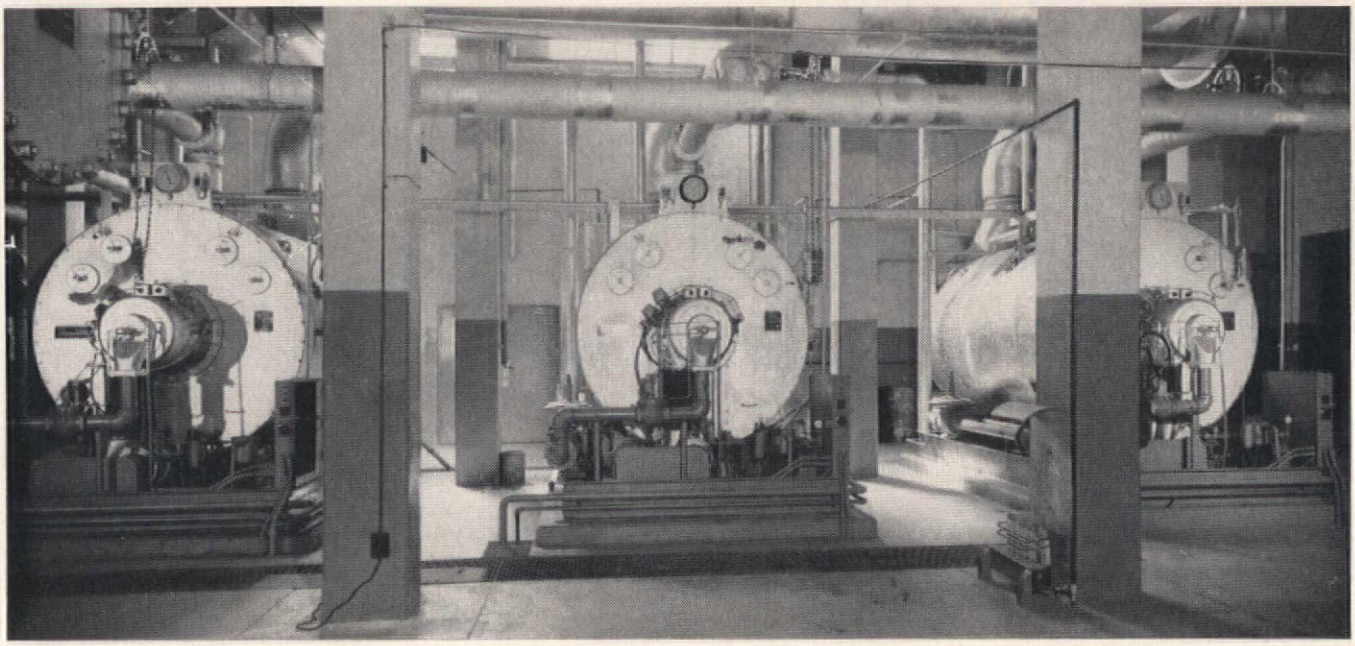
C-O-TWO FIRE EQUIPMENT COMPANY
NEWARK 1 • NEW JERSEY

C-O-TWO FIRE EQUIPMENT OF CANADA, LTD. • TORONTO 8 • ONTARIO

Sales and Service in the Principal Cities of United States and Canada

AFFILIATED WITH PYRENE MANUFACTURING COMPANY

IN ALL TYPES OF BUILDINGS



This installation was made by Continental Engineers, Inc., mechanical contractors, of Atlanta. Gas is supplied by Atlanta Gas Light Company.

Powermaster® Efficiency Pays Off

For example: Only $1.15 per month per apartment average fuel costs the year around for Heating, Hot Water and Air Conditioning for 535 apartments in Howell House at Atlanta, Ga.

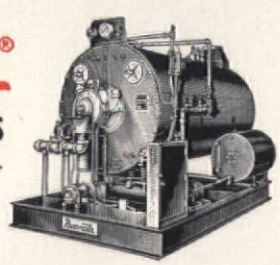
These services in this new modern building are supplied by three *Powermaster* Packaged Automatic Boilers at this amazingly low cost for gas and oil fuel. Providing year-round services with the boilers result in maximum operating economy. Yet fuel saving is only one reason *Powermaster* is so popular with those who select, install and operate boilers for all types of buildings—offices, hotels, institutions, churches, housing projects, etc. Cost-saving installation, space-saving compactness, fast steaming, hospital-clean operation, dependability, maintenance-saving accessibility, fully automatic operating and safety controls, and smokeless combustion are others. Compare *Powermaster* with any other packaged automatic boiler and you'll see why it is today's best buy for schools, industrial plants, laundries, and other requirements as well as for all types of buildings. Send for latest descriptive bulletin.

O&S

Powermaster®

PACKAGED AUTOMATIC BOILERS

In sizes to 500 HP; pressures to 250 psi.



ORR & SEMBOWER, INC. • Established 1885 • **Morgantown Road, Reading, Penna.**

Aerofuse Diffusers..

. . . installed at the vital point of air delivery in the nation's first aluminum skyscraper . . . ALCOA BUILDING

TYPE D AEROFUSE DIFFUSERS AS INSTALLED IN ALCOA

In the heart of Pittsburgh's Golden Triangle, the gleaming Alcoa Building rises thirty floors, a dramatic new concept in multi-story building design and construction. In Alcoa, as in other outstanding buildings from coast to coast — where the efficient performance and attractive appearance of air distribution equipment must meet rigid engineering and architectural specifications — Aerofuse Diffusers were selected for installation at the *vital point of air delivery.*

TUTTLE & BAILEY INC

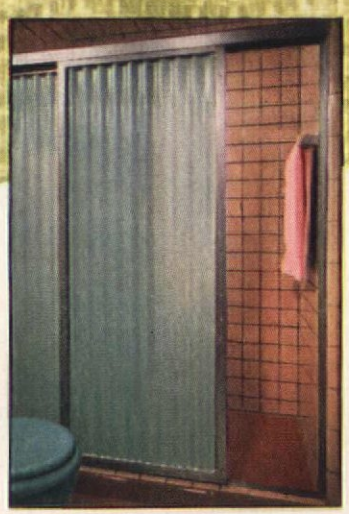
NEW BRITAIN, CONNECTICUT

Woven Corrulux® . . . LOF's *new* decorative panel that combines rich texture with uniformity of color

• Use *Woven* Corrulux for indoor planters (right) or for office partitions (below). It's shatterproof, strong, resistant to sharp blows, moderate in cost. *Woven* Corrulux comes in two weaves: *bold weave* for accent on texture, *fine weave* for lighting effects.

Woven Corrulux, offered exclusively by Libbey • Owens • Ford Glass Company, captures a new translucent texture and uniformity never before obtained with any other building material. It combines shatterproof translucence with the textured pattern of woven fiber glass fabric, creating a brand new, decorative building panel.

Woven Corrulux is perfect for room dividers, tub and shower enclosures, ceilings, decorative interior facings, movable screens, and countless other uses.



• Bath enclosures and shower stalls of *Woven* Corrulux add colorful translucent beauty.

LOF Corrulux GLASS FIBER-GLASS

FREE SAMPLE

For something really **new** in corrugated plastic panels, see **Woven** Corrulux at your Corrulux distributor, or write today for free sample plus idea folder. Contains technical details, use suggestions; shows seven **Woven** Corrulux decorator colors.

CORRULUX DIVISION LIBBEY • OWENS • FORD GLASS COMPANY **P. O. Box 20026 • Houston 25, Texas**

Should be in every BASEMENT!

● Basements as well as utility rooms in basementless houses should be protected against water damage. That means using Medusa Waterproofed Cements (or Waterproofing Paste or Powder when waterproofed cements are not available) in all concrete and mortar. These Waterproofings bring economy and satisfaction for the architect and builder, alike.

The cost of using Medusa Waterproofings over a non-waterproofed cement is so small that it means practically nothing in the total home cost, yet assures home owners of dry basements and utility rooms for years to come.

Medusa Waterproofings are available everywhere in one of these forms—Medusa Waterproofed Gray and White Portland Cements, or Medusa Waterproofing Paste and Powder for mixing with regular portland cements. Contact your nearest Medusa sales office for further details.

MEDUSA Portland Cement Company

1000 Midland Building • Cleveland 15, Ohio

SALES OFFICES
Cleveland, Ohio
Chicago, Illinois — Toledo, Ohio
Pittsburgh, Pa. — New York, N. Y.
Milwaukee, Wisc. — York, Pennsylvania

WHITE • WATERPROOFED WHITE • GRAY
WATERPROOFED GRAY • AIR ENTRAINING • STONESET
HIGH EARLY STRENGTH • BRIKSET
WHITE TILE GROUT CEMENT

MAKERS OF AMERICA'S FINEST PORTLAND CEMENTS FOR OVER SIXTY YEARS

The Goal Of All Good Cage Teams!

Official Rectangular Backboard of ½" Herculite tempered glass. Sturdy, rigid metal frame. (NOT SHOWN) Medart's ruggedly-framed, thick plywood rectangular backboard, a favorite for practice.

MEDART BASKETBALL BACKSTOPS

Supplying basketball's most rigid, vibration-free, strong and durable backboards is only part of the obligation Medart assumes. At the start, experienced engineers analyze structural conditions, play requirement and other factors to assure selection of the *right* backstop. Then each one is properly erected to guarantee a completely "Tailored-To-The-Job" Official installation. Before choosing any backstop, always consult *Medart — The Nation's Most Experienced Authority.*

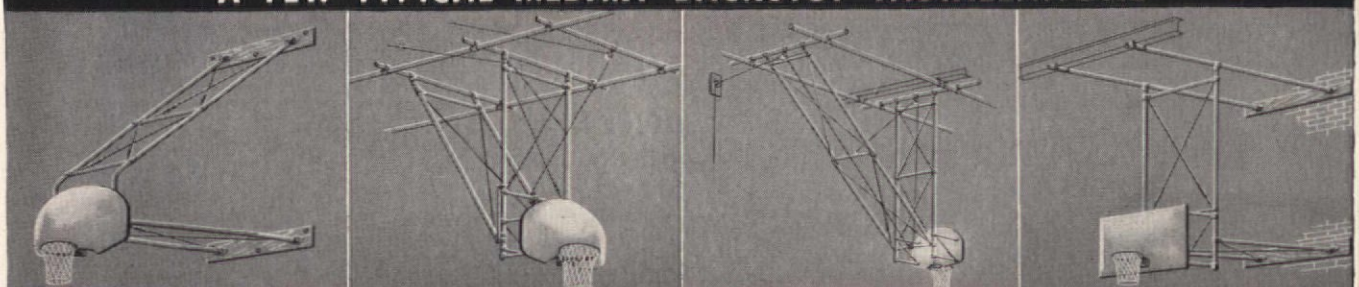
Official Fan-Shaped Backboard of Herculite tempered glass, Neoprene-cushioned and permanently mounted in double-angle, welded metal frame. Quickly replaces any Medart fan-shaped Official steel backboard. (NOT SHOWN) Medart's world-famous Official fan-shaped steel backboard, built of a single 10-gauge steel shell, channel-reinforced.

Medart ST. LOUIS MISSOURI

FRED MEDART PRODUCTS, INC.

3540 DeKalb • St. Louis 18, Mo.

A FEW TYPICAL MEDART BACKSTOP INSTALLATIONS



No. 421 Modified Fixed Wall-Braced | No. 261 Self-Braced Forward Swing-Up | No. 271 Backward Swing-Up | No. 420 Suspended Fixed Wall-Braced

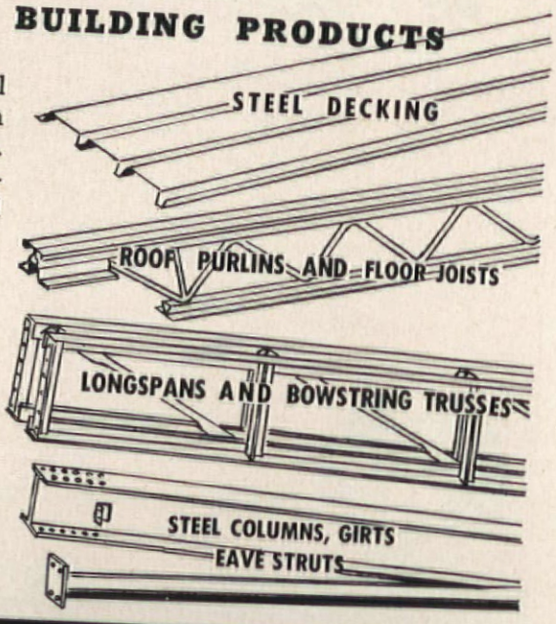
To The Owner and Architect—

This is the BASIC ADVANTAGE when you design with MACOMBER STANDARDIZED STEEL BUILDING PRODUCTS

TAKE THIS BUILDING FOR EXAMPLE — every structural member is a cataloged item — ready to be designed by an architect into a building to meet the exact needs of the owner. You have complete flexibility as to dimensions, load carrying capacity and building type to produce a modern structural design in harmony with other property structures.

Here is the low maintenance of masonry walls, an insulated steel deck with built-up roof, the fire-safety of STEEL and the economy of line production.

With the conventional framing members shown opposite or V-LOK Interlocking members you can build with MACOMBER.



Your Macomber Representative can give you detailed information and valuable suggestions. Call him.

STANDARDIZED STEEL
V BAR JOISTS • LONGSPANS
BUILDING PRODUCTS
STEEL TRUSSES • STEEL DECK

MACOMBER INCORPORATED

CANTON 1, OHIO

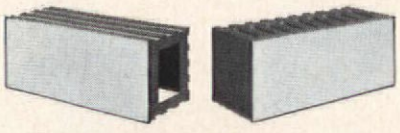
• ENGINEERING • FABRICATING AND ERECTING •

you can *rely* on FACING TILE ... it's proved by years of varied use!

After 16 years of service, the glazed structural Facing Tile in corridors, stairwells, showers and gymnasium in Pittsburgh's Concord School shows no signs of wear and tear.

"We haven't had to spend a penny on Facing Tile maintenance," says H. L. Heilman, Director of Plant Operation and Maintenance, Pittsburgh Public Schools. "This material defies pencil marks and other natural hazards of school operation. It cleans easily—and it's just as good looking today as when the school was built."

Corridor, Concord School
Pittsburgh, Pennsylvania



MINIMUM MAINTENANCE—Facing Tile's smooth impervious surface offers no foothold for dirt or grime, washes clean as a beach pebble with plain soap and water.

NO REFINISHING COSTS—Glazed or unglazed, Facing Tile saves your clients the expense and inconvenience of redecorating—its tough ceramic finish takes all sorts of heavy punishment without harm—year after year.

PERMANENT "COLOR-ENGINEERING"—Facing Tile colors are scientifically designed by color authority Faber Birren to help you fit the surroundings to the task—and you can rest assured that the color you specify will *last*.

STRUCTURAL STRENGTH—No need to worry about material failures—Facing Tile provides the time-tested structural stability of burned clay products.

CONSTRUCTION ECONOMY—Made in large modular sizes, Facing Tile lays up fast, with a minimum of cutting and fitting, builds a load-bearing wall and finish in one.

For complete data, contact any Institute Member, or write us direct. Address: Dept. AR-5.

CHARLESTON CLAY PRODUCTS CO.
Charleston 22, West Virginia

THE CLAYCRAFT CO.
Columbus 16, Ohio

HYDRAULIC PRESS BRICK CO.
Brazil, Indiana

MAPLETON CLAY PRODUCTS CO.
Canton, Ohio

METROPOLITAN BRICK, INC.
Canton 2, Ohio

McNEES-KITTANNING CO.
Kittanning, Pennsylvania

NATCO CORPORATION
Pittsburgh 22, Pennsylvania

STARK CERAMICS, INC.
Canton 1, Ohio

WEST VIRGINIA BRICK CO.
Charleston 24, West Virginia

LOOK FOR FTI THIS SEAL

Used only by the members of the Facing Tile Institute, it is your assurance of highest quality. In the interest of better Facing Tile construction the companies listed above have contributed to the preparation of this advertisement.

FACING TILE INSTITUTE

1520 18th St., N. W., Washington 6, D. C. • 1949 Grand Central Terminal, New York 17, N.Y.

THE "OVERHEAD DOOR" TRADE MARK

GOES TO SCHOOL

First consolidated school west of the Alleghenies 'way back in 1899!

USED IN HAMILTON TOWNSHIP SCHOOL SHOPS . . .

to give Wide Openings for Machines and Materials, plus Weathertight Closure

Architects and builders constantly discover new uses for The "OVERHEAD DOOR" — America's first and finest upward-acting door. The big rural consolidated school at Royerton, Indiana, has two large doors serving efficiently as workshop portals. Classes work in comfort because of the weathertight closure of The "OVERHEAD DOOR."

Principal C. C. French says:

"The 'OVERHEAD DOOR' has proved so satisfactory and so easy to open and close that it will be used wherever possible in our expansion program. The rapid growth in population in this area makes it necessary to construct new buildings in the near future."

© 1954—O. D. C.

Tractors pull farm machinery into the Vocational Agricultural Shop for student instruction. After hours, this area houses the school's dual-control driver training cars.

Lumber and large tools are easily admitted to the Industrial Arts Shop; large finished projects are easily removed. Weathertight closure maintains even temperatures in coldest weather.

What's YOUR Requirement? Your local distributor of The "OVERHEAD DOOR" will cooperate in solving any special door problem, whether for school, hospital, warehouse, factory or residence. Doors are built in any size to fit the openings — with top-quality materials, perfect counterbalance and expert installation. Specify the best—The "OVERHEAD DOOR." Look for the trade mark in the yellow pages of your directory or write to:

OVERHEAD DOOR CORPORATION
HARTFORD CITY, INDIANA

MANUFACTURING DIVISIONS

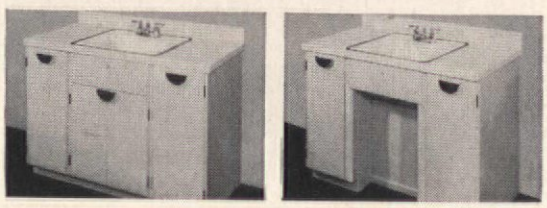
Hillside, N.J. — Cortland, N.Y. — Dallas, Tex.
Nashua, N.H. — Lewistown, Pa. — Oklahoma City
Portland, Ore. — Glendale, Cal.

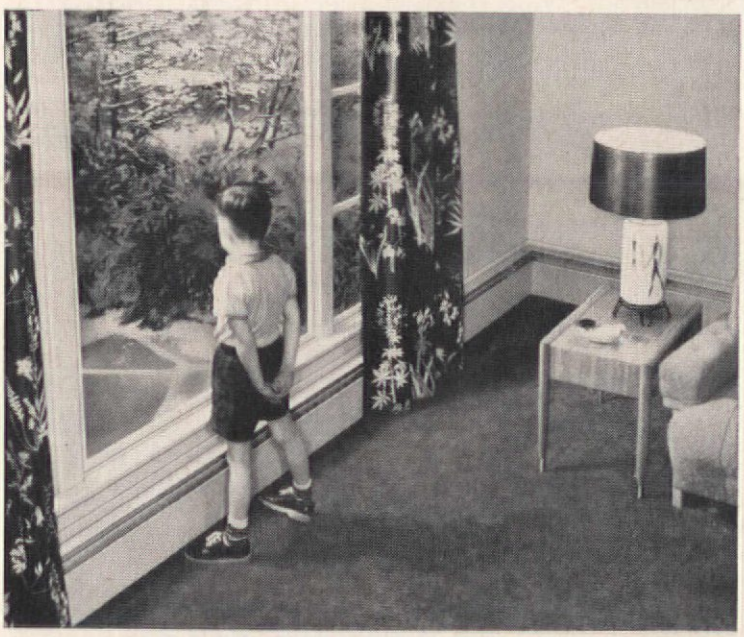
NATION-WIDE SALES • INSTALLATION • SERVICE

PRODUCT NEWS from AMERICAN-Standard

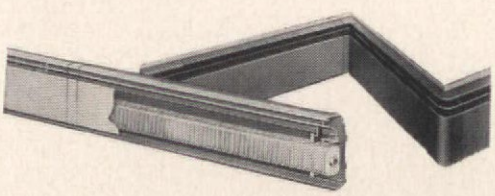
A review of products in the news and important features worth remembering

LAVATORY-DRESSING TABLES by American-Standard will add beauty and convenience—and client appeal – to the homes you plan. Each fixture combines dressing table and storage cabinet in one compact unit. Shown here are the New Dresslyn, left; the Highlyn, left below; and the Merrilyn, at right below. The New Dresslyn and Merrilyn have genuine vitreous china lavatories . . . the Highlyn has enameled cast iron lavatory. Cabinets and lavatories come in a variety of color combinations. All units are available in straight front or kneehole models.





HEATRIM PANELS are the modern way of providing comfortable, even, convected warmth throughout an entire room. They are specifically designed for forced-circulation hot water heating. Taking the place of conventional wood baseboards, Heatrim panels save floor space, leave walls unbroken, permit greater latitude in designing and decorating. They can be installed against existing walls or recessed to the depth of the plaster. They are perfect for use under picture windows . . . are also much in demand for premium-space installations.



Member of the Producers' Council

American-Standard
Dept. AR-54, Pittsburgh 30, Pa.

Without obligation on my part, please send me literature on:

☐ Lavatory-Dressing Tables
☐ Heatrim Panels

Name .....
Firm .....
Address .....
City ..... State .....

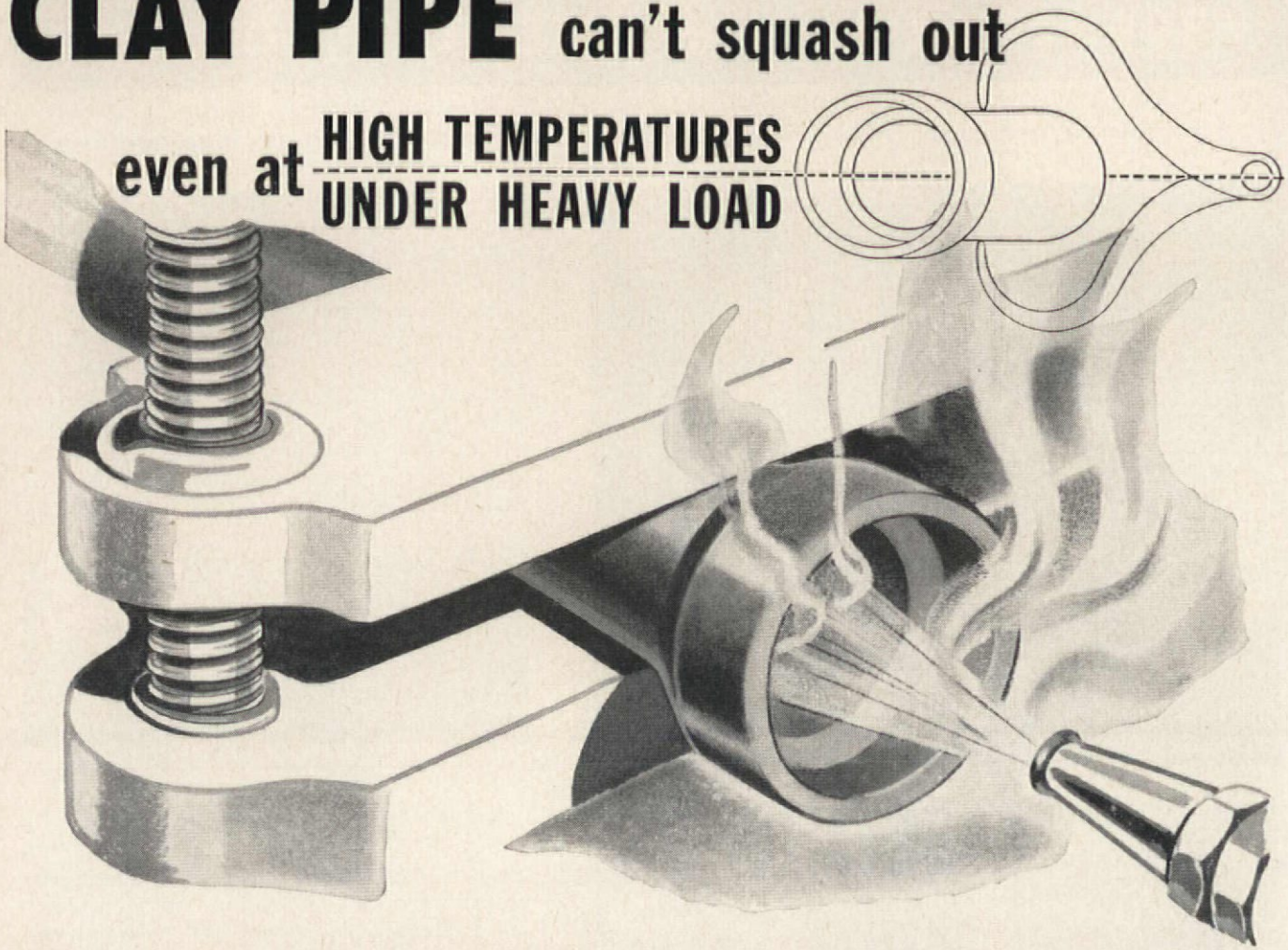
AMERICAN-Standard

American Radiator & Standard Sanitary Corporation, Dept. AR-54, Pittsburgh 30, Pa.

Serving home and industry: AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • KEWANEE BOILERS • ROSS EXCHANGERS • SUNBEAM AIR CONDITIONERS

CLAY PIPE can't squash out

even at HIGH TEMPERATURES UNDER HEAVY LOAD



VITRIFIED CLAY PIPE withstands not only the ordinary hot water from homes and industries, but extremes of temperature and heavy loads.

Actual tests, conducted at the N.C.P.M.I. research laboratories in California, prove that Clay Pipe stays round and true — wet or dry, hot or cold, under live or dead loads.

In one test, superheated steam is run through the pipe to raise its temperature. At the same time, a crush-strength testing device puts a severe load on the pipe. Careful calibration after the test proves that Clay Pipe does not change shape by the tiniest fraction of an inch.

The manufacturers of Vitrified Clay Pipe endeavor to make this fine product even better through scientific research. You can be sure you're getting the latest and best when you use Vitrified Clay Pipe.

NATIONAL CLAY PIPE MANUFACTURERS, INC.
1520 18th St. N.W., Washington 6, D. C.

311 High Long Bldg., 5 E. Long St., Columbus 15, Ohio
703 Ninth & Hill Bldg., Los Angeles 15, Calif.
206 Connally Bldg., Atlanta 3, Ga.
100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.

Vitrified
CLAY
CLAY PIPE NEVER WEARS OUT!
PIPE

C-854-2

ADVANCE BALLAST ENGINEERING

IS YOUR ASSURANCE OF ADHERENCE TO THE RIGID STANDARDS ESTABLISHED BY CERTIFIED BALLAST MANUFACTURERS AND MAINTAINED THROUGH THE IMPARTIAL TESTING OF ETL TO PROVIDE LAMP OPERATION FOR MAXIMUM LUMEN OUTPUT, DESIRED BRILLIANCE AND LONGER LIFE.

Designed & Engineered
BY THE
WORLD'S LARGEST MANUFACTURER
DEVOTED *Exclusively* TO THE PRODUCTION OF
FLUORESCENT LAMP BALLASTS

ADVANCE TRANSFORMER CO.

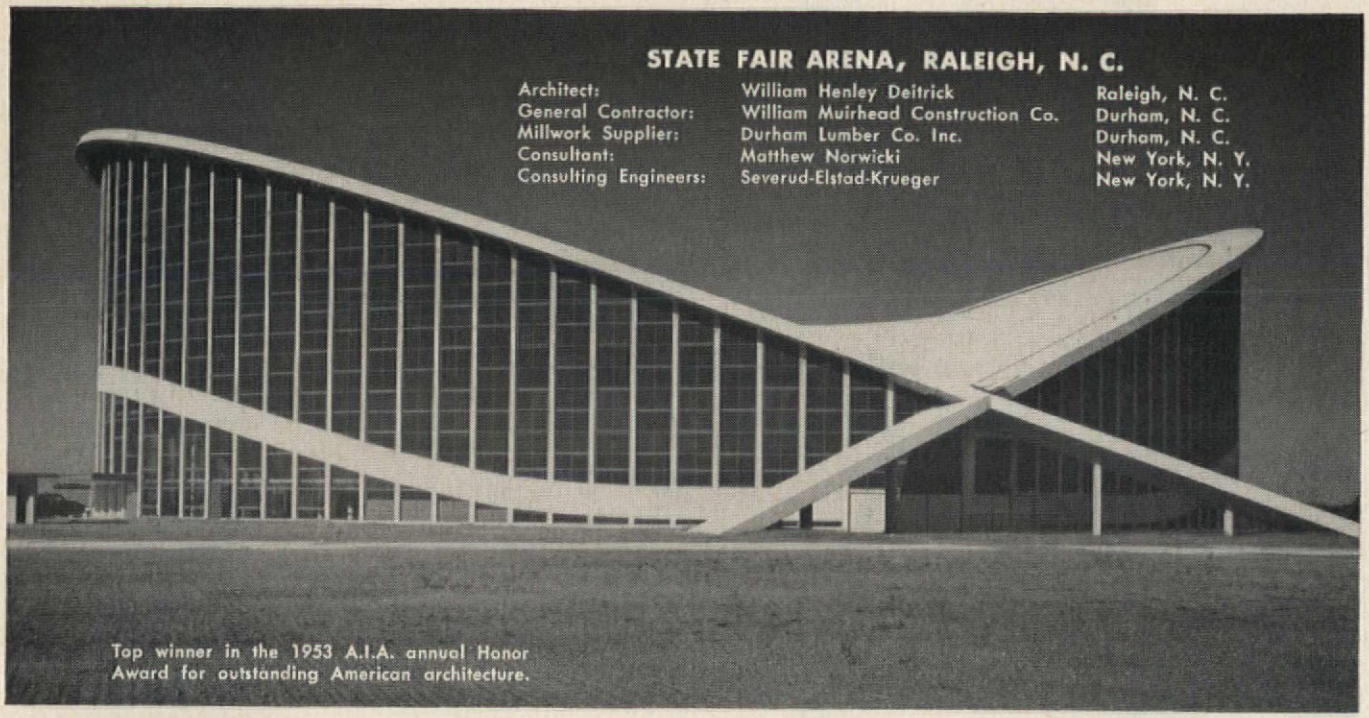
Cable Address "ADTRANS"
2950 N. WESTERN AVENUE, CHICAGO 18, ILLINOIS, U.S.A.

IN AMERICA'S MOST TALKED-ABOUT BUILDING

THE ARCHITECTS SPECIFIED

PAINE
SOLID CORE
DOORS

America's Finest



The choice of architects for over 50 years.

Paine Solid Core Doors are backed by over a half century of installation experience in public buildings throughout the United States. Made by woodworking specialists. Hand matched face veneers, precision bonding, stroke sanding to a cabinet maker's finish, meticulous inspection — each step of exacting craftsmanship contributes to making them America's finest flush doors . . . the choice of architects who know there is no substitute for quality.

Write for details

PAINE

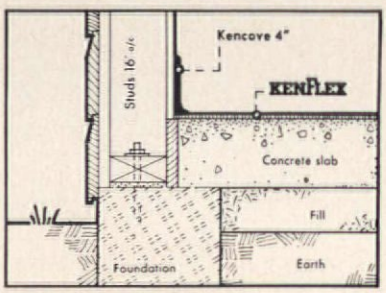
LUMBER COMPANY, LTD., Oshkosh, Wisconsin

Established 1853

Specify KENFLEX when you want a moderate-priced vinyl tile floor

A. I. A. 23-G

KENFLEX provides specifiers with a low-cost opportunity to add the saleable advantages of vinyl flooring to every installation. In stores such as the bakery shown above, easy maintenance is of utmost importance. KENFLEX seldom needs scrubbing. Cleaning is easy and economical because dirt, grit, grease and grime can't penetrate the non-porous surface.



Above detail illustrates how KenFlex is installed directly over concrete. Prime coating of concrete is unnecessary.

Your clients would want KenFlex even if it cost much more than it actually does! KenFlex gives every advantage of higher-priced floors...can be installed where so-called "luxury" floors are impractical. KenFlex is durable vinyl-asbestos... easily outwearing other types of resilient floors of the same thickness. And, KenFlex is easy to clean...no matter what greases, oils, alcohols, alkalis, dyes or household acids are spilled on it. Waxing is not required...except to add additional luster to the brilliant colors.

Specifications and Technical Data

INSTALLATION: Over any smooth, firm interior surface: wood, plywood, radiant heated concrete slab, concrete in contact with the earth—on or below grade.

THICKNESSES: Laboratory and in-use tests have proven the wear-resistance and durability of vinyl flooring. Consequently, Standard Gauge (1/16") is recommended for normal residential and commercial uses. Where traffic will be severe, 1/8" KenFlex is suggested.

SIZES: Standard tile size is 9" x 9"...also available are 9" x 9" decorative ThemeTile inserts, and 1" x 24" Feature Strip in four solid colors.

Approximate Installed Prices (per sq. ft.)

	Standard (1/16") Gauge	1/8" Gauge
KENFLEX all colors	40¢	65¢

KenFlex is available in 15 co-ordinated colors, all of which are marbleized. Costs shown are based on a minimum area of 1,000 sq. ft. over cement underfloor.

Samples and Technical Literature available on request from any of the Kentile, Inc. offices listed below. Or, contact the nearest Kentile Flooring Contractor. He's listed under FLOORS in the Classified Telephone Directory.

KenFlex is the floor your clients know and want...

BACKED BY MORE FULL-COLOR ADVERTISING THAN ANY OTHER VINYL TILE FLOOR

KENFLEX® VINYL TILE

KENTILE * SPECIAL KENTILE * KENCORK * KENRUBBER * KENFLEX * KENFLOR

®REG. U. S. PAT. OFF.

KENTILE, INC., 58 SECOND AVENUE, BROOKLYN 15, NEW YORK • 350 FIFTH AVENUE, NEW YORK 1, NEW YORK • 705 ARCHITECTS BUILDING, 17TH AND SANSOM STREETS, PHILADELPHIA 3, PENNSYLVANIA • 1211 NBC BUILDING, CLEVELAND 14, OHIO • 900 PEACHTREE STREET N.E., ATLANTA 5, GEORGIA 2020 WALNUT STREET, KANSAS CITY 8, MISSOURI • 4532 SO. KOLIN AVENUE, CHICAGO 32, ILLINOIS • 4501 SANTA FE AVENUE, LOS ANGELES 58, CALIFORNIA

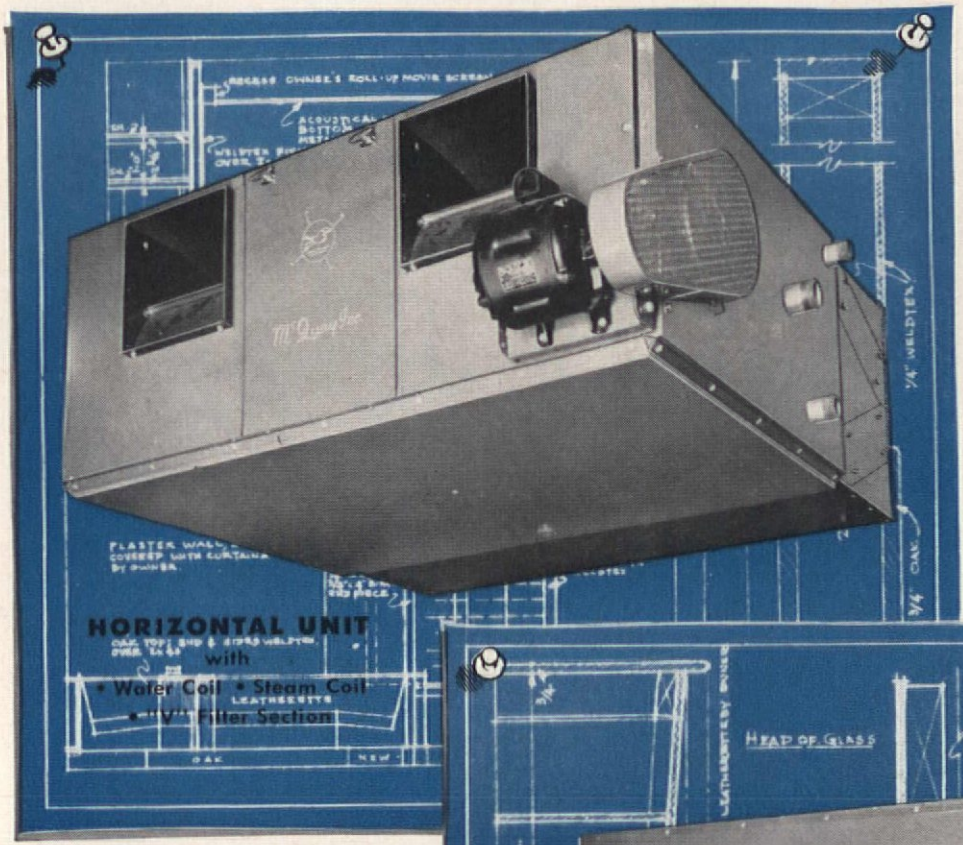
When plans demand wide range, year 'round CENTRAL STATION AIR CONDITIONERS

Specify McQuay SEASONMASTERS

McQuay's 24-page catalog No. 505 will give you a big assist in planning the installation of central station air conditioners that will meet requirements of the job in every particular.

Seasonmasters come in 14 models, in both horizontal and vertical types and in a wide range of Cfm and Btu capacities. All models have maximum flexibility in location of coil connections and air openings. A full line of cooling and heating coils and a wide variety of accessories are available.

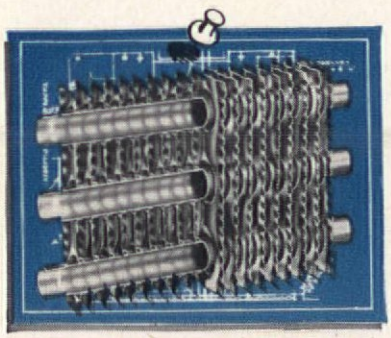
The many practical combinations are another McQuay engineering achievement that make it possible for you to install custom-made systems, and the McQuay Seasonmaster catalog No. 505 gives you complete information on how to do it. Get your copy now and be ready to make the right recommendations . . . recommend McQuay Seasonmasters with complete confidence of quality and dependability. Representatives in principal cities. Or write McQuay Inc., 1605 Broadway St. N. E., Minneapolis 13, Minn.



McQuay SEASONMASTERS

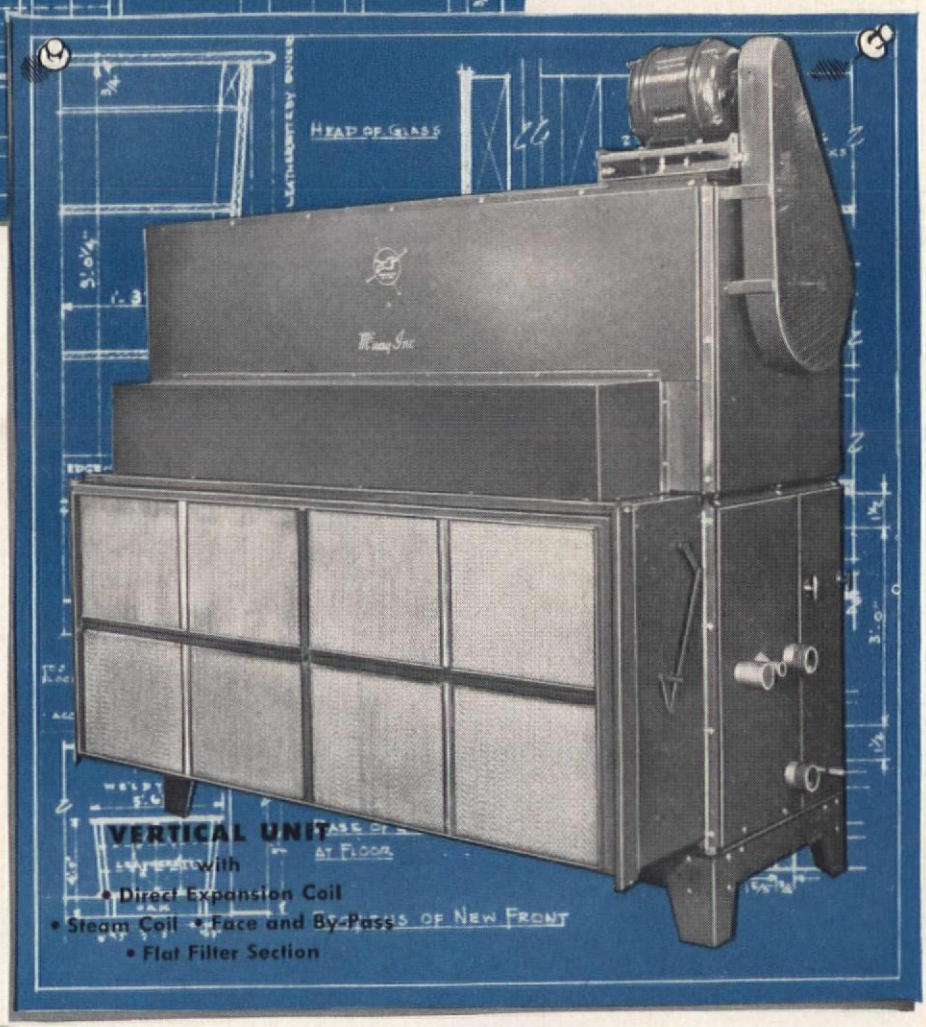
14 MODELS IN THE LINE

Seasonmasters are adaptable to all year 'round demands...cooling and dehumidification, heating and humidification, positive ventilation, and air filtering. All models are available in both horizontal and vertical types.



FAMOUS RIPPLE-FIN CONSTRUCTION

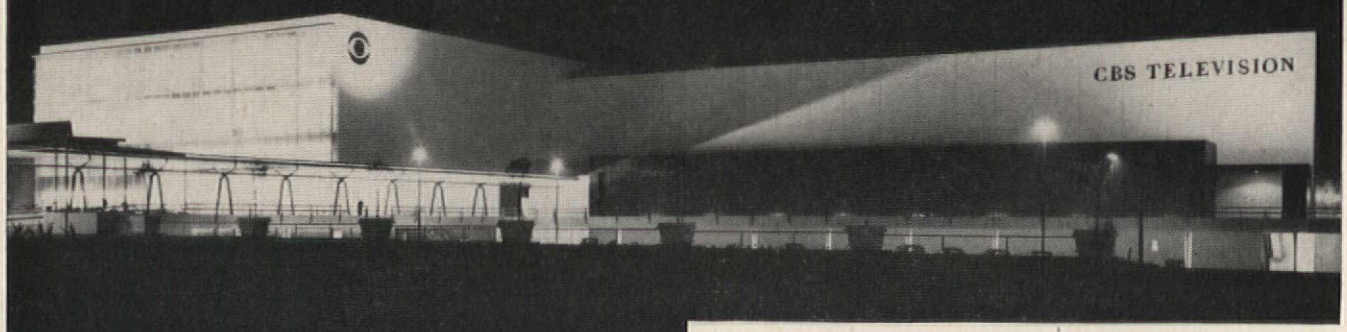
McQuay Ripple-Fin Coil construction is your assurance of unmatched heat transfer efficiency and economical long-life performance. Seamless copper tubes are expanded into wide, smooth collars of aluminum fins. Headers are heavy wall, seamless copper tubes.



McQuay INC.

HEATING
AIR CONDITIONING
REFRIGERATION

TELEVISION CITY ... expansible nucleus for a giant of the future



"TELEVISION CITY"—CBS-TV's West Coast studios reflect the efficiency, flexibility and expansibility of their design. Architects · Engineers: Pereira & Luckman. General Contractor: William Simpson Construction Co.

● The Columbia Broadcasting System's clean-lined "Television City" in Hollywood, California is the core of an anticipated 25-acre, 24-studio expansion of the network's West Coast TV production facilities. Plans for future enlargement of the building specify that the present walls be easily demountable. Consequently, most of the exterior is composed of large, plain, movable steel panels and glass walls.

The sleek lines of the structure manifest the ideas of efficiency and flexibility upon which the design was based. With such key words as a guide to design, it is a foregone conclusion that the most efficient and dependable pipe and tubing should be chosen for the building's plumbing and heating systems. NATIONAL Steel Pipe got the nod.

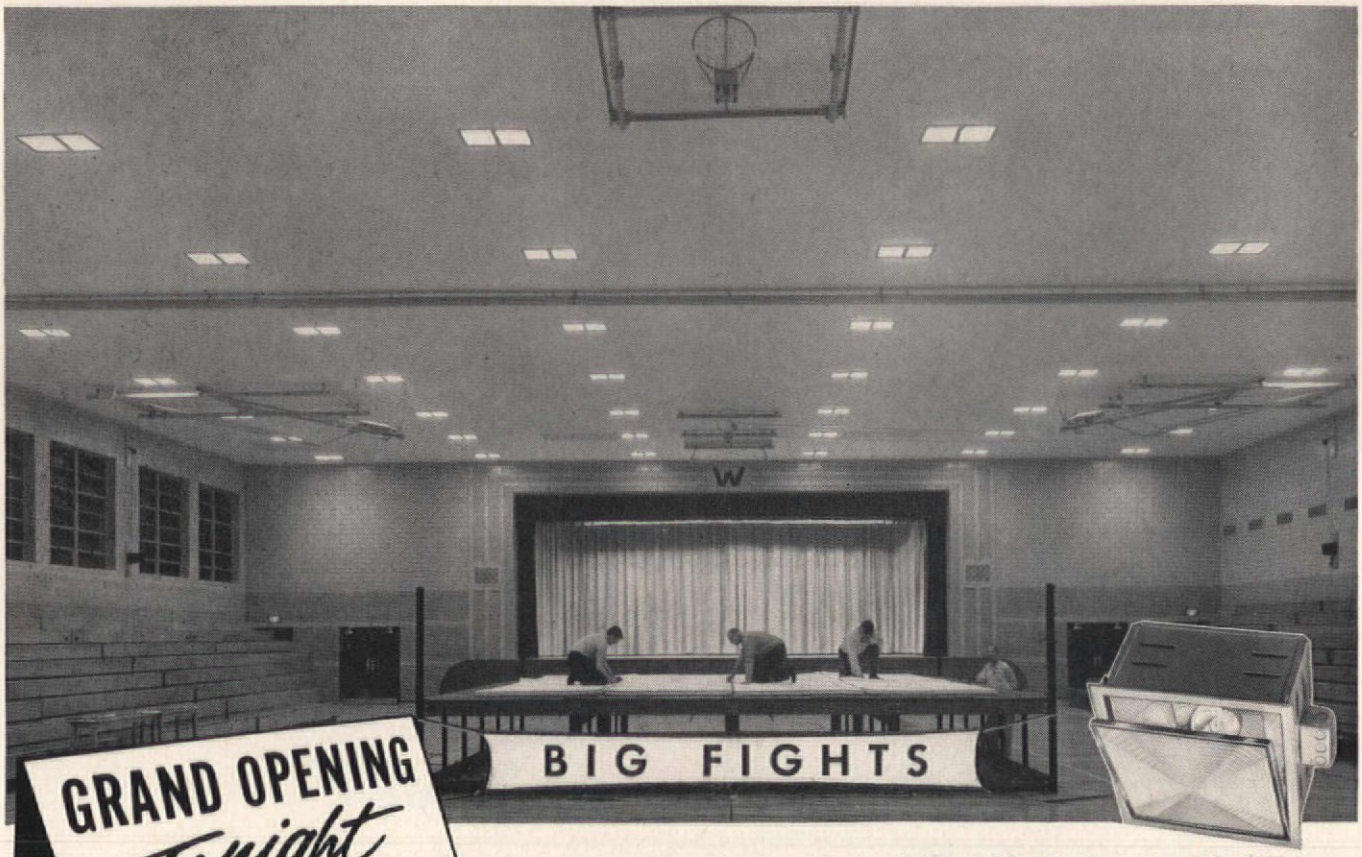
For over 60 years NATIONAL has been the accepted standard pipe for conventional hot water and steam heating systems, fire control, and plumbing lines. And today, it is the first choice, too, for modern radiant heating and snow melting installations. Regardless of the application, architects know from long experience that they can put their complete confidence in the uniform, dependable performance of NATIONAL Pipe.

Take a tip from the old timers. When you plan your next installation, plan on using the best-known pipe in the world—U·S·S NATIONAL Steel Pipe.

NATIONAL TUBE DIVISION,
UNITED STATES STEEL CORPORATION, PITTSBURGH, PA.
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

U·S·S NATIONAL Steel PIPE

UNITED STATES STEEL

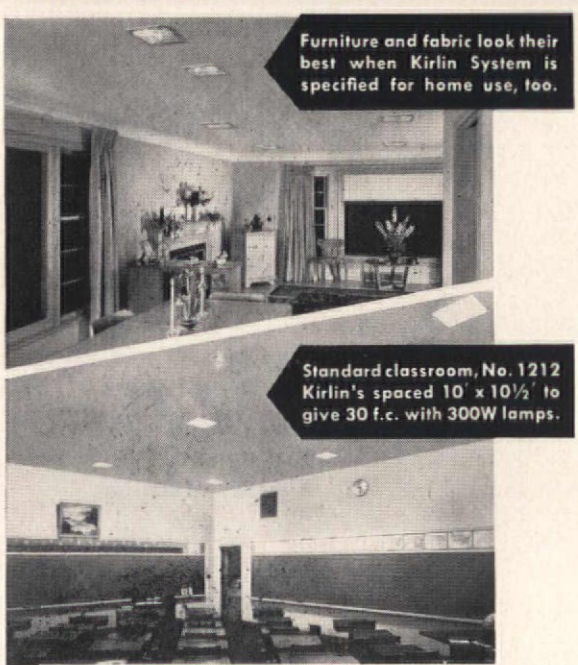


Meeting hall and gymnasium.
Wierton Community Center, Wierton, W. Va.
John J. Rietz, Architect; Wm. Porter, Engineer.
Specified were 60 Kirlin Twin No. 1212-2, 300W (5 watts sq. ft.) at approx. 11′ centers on 21′ ceiling. (30 ft. candles)

....fought under the CHAMPION of LIGHTS

Kirlin SYSTEM BUILT-IN Lighting

EXTRA WIDE ANGLE LENS FOR WIDE DISTRIBUTION OF LIGHT RAYS



You well realize the necessity of specifying "vertical-surface" lighting for any hall where athletics, theatricals, or meetings take place. Under good lights the audience sees the punches landed because the *sides* of the fighters' bodies are illuminated. Light from above, with extra wide distribution, utilizes more of the light from the lamps. The Kirlin System delivers more effective "vertical-surface" lighting.

FOR EXAMPLE – this gymnasium above has only 60 pairs of 300W Kirlin units, yet 30 f.c. readings are secured with 25 f.c. at the walls, again proving that the high efficiency ratings in the Kirlin Catalog are correct.

OTHER ADVANTAGES from the Kirlin System at this Wierton hall – space available above ceiling was insufficient to re-lamp from above; all Kirlin units are re-lamped from below – absence of dangling fixtures increased apparent height of 21′ ceiling – Shock resistant lenses require no guards so cleaning is an easy job.

Installation costs are less with Kirlin fixtures. Regular building wire, such as rubber covered, is run direct to exclusive heat-insulated junction box. No asbestos wire is needed.

Specify the Kirlin System of built-in lighting and earn the gratitude of your clients. Catalogs and AIA data file on request.

OTHER REASONS FOR SPECIFYING KIRLIN

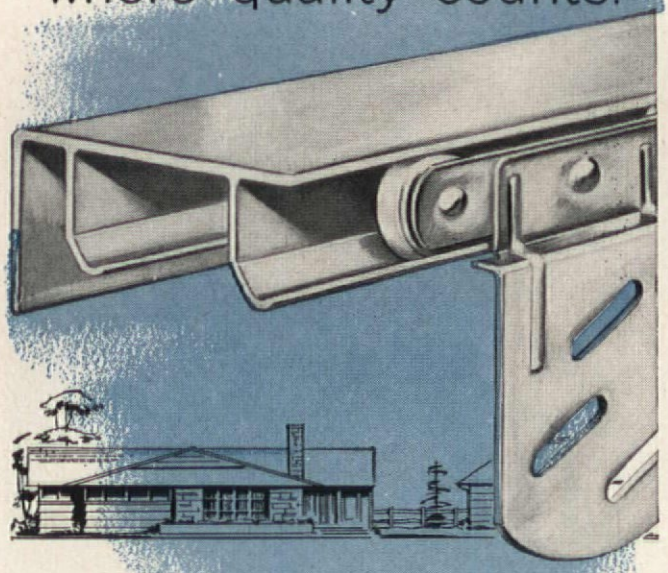
- Made in all sizes — square or rectangular — and in Fluorescent.
- UL and IBEW Labels.
- In stock at leading wholesalers.
- Wide-angle or concentrating lens.
- Hinged rust-resisting doors in die cast frames suitable for outdoor locations.

LARGEST SELLING RECESSED LINE—MILLIONS IN USE EVERYWHERE

The KIRLIN CO. 3435 E. JEFFERSON AVE. DETROIT 7, MICHIGAN

Sterling® HARDWARE

used in buildings where quality counts!



SLIDING DOORS ADD BEAUTY...SPACE...
Sterling HARDWARE ADDS "QUALITY BY DESIGN"

Simple to install . . . better when installed. No expensive callbacks due to failure of operation because Sterling Sliding Door Hardware is better designed. It has been tested and proved through years of continued service in homes everywhere.

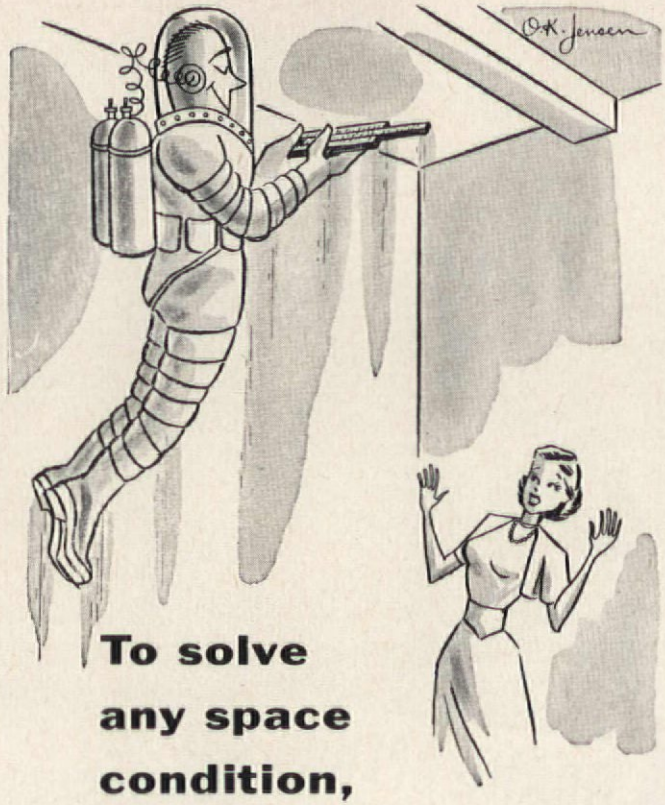
Sterling Sliding Door Hardware is available in **Complete Packaged Sets** to fit most door openings. Write Today For Catalog.

STERLING HARDWARE MFG. CO.
2345 WEST NELSON STREET • CHICAGO 18, ILLINOIS

Sterling means Quality

Sterling® HARDWARE

NATIONALLY ADVERTISED in Leading Magazines
SEE OUR CATALOG IN SWEET'S:
Architectural File • Light Construction File
VISIT OUR DISPLAYS:
Architects Samples Corporation, N.Y.C.
Chicagoland Home Building Center



To solve any space condition, specify

AGITAIR

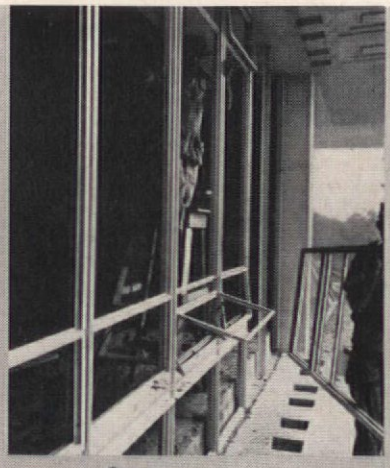
For correct air distribution to suit any space condition, AGITAIR square and rectangular diffusers have no equal. Custom-designed with built-in diffusing vanes, in a wide variety of louver patterns, they provide blows in 1, 2, 3 or 4 directions without use of blank-offs. AGITAIR diffusers need not be centrally located in the area to be served.

Advantages of AGITAIR'S exclusive air pattern control feature are greater design freedom for achitects and engineers, certified 100% draftless air distribution from any ceiling or sidewall location, maximum economy in duct runs.

New 34-page Type R Catalog reveals how correct air distribution is simplified by AGITAIR. Contact your local AGITAIR representative, or write us direct for your free copy.

AIR DEVICES INC.
185 Madison Avenue, New York 16, N. Y.

AIR DIFFUSERS • FILTERS • EXHAUSTERS

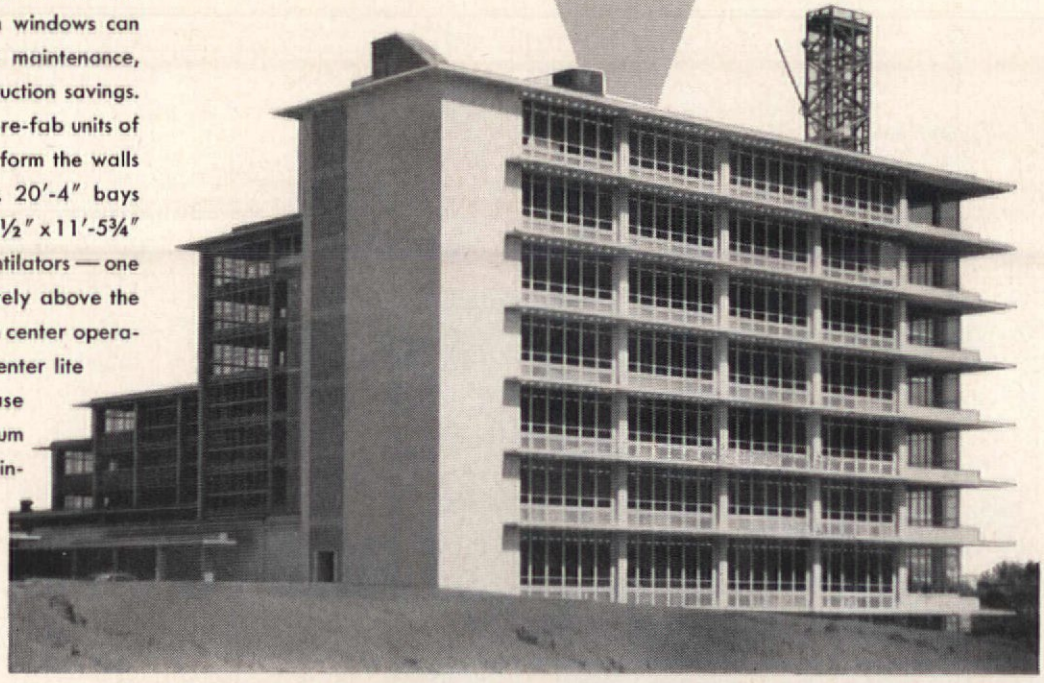


Workmen easily handle the sturdy, lightweight Ware wall sections which substantially reduce installation time.

Aluminum curtain wall by WARE

CUTS BOTH CONSTRUCTION AND MAINTENANCE COSTS FOR THE University of Arkansas Medical Center

These pictures clearly demonstrate how the use of floor-height aluminum windows can cut installation costs, reduce maintenance, and effect many other construction savings. They show how these Ware pre-fab units of aluminum and glass actually form the walls of this monumental structure. 20′-4″ bays are made from mulled 3′-3½″ x 11′-5¾″ Ware factory units. Two ventilators — one at the top and one immediately above the sill are controlled by a built-in center operator at sill height. The large center lite is fixed. From the sill to the base of the window an aluminum spandrel is installed in the window frame on the job.



ARCHITECTS: Erhart, Eichenbaum & Rauch
Little Rock, Arkansas
Edward D. Stone, Associate

CONTRACTOR: W. R. Grimshaw Company
Little Rock, Arkansas

Why not get all the helpful facts?
Write
Dept. AR-5 today.

Aluminum WARE Windows

Ware Laboratories, Inc., 3700 N. W. 25th St., Miami, Florida

CONVENIENTLY LOCATED WAREHOUSES IN CHICAGO, NEWARK, ATLANTA, AND HOUSTON.

The modern home is a DRY THOROSEALED home!

EXPERIENCE counts in getting quality materials.

PRODUCTION volume counts in getting the lowest cost to the ultimate consumer.

ORGANIZED DISTRIBUTION and **SERVICE** count in getting materials to contractor, when needed.

Distributors and dealers are located throughout United States, Cuba, Puerto Rico, Canada and Honolulu.

Get our pictorially-described literature, "HOW TO DO IT" and specification guide.

Standard Dry Wall Products, Inc.
NEW EAGLE, PENNSYLVANIA

take a good look at SUGAR PINE

one of 10 woods from the WESTERN PINE region

Light-weight, strong, little shrinkage, workable, nailable, soft and uniform-textured, light colored—Sugar Pine fits all those specifications! You can specify it for every construction job from foundation to roof ridge—window and door frames, paneling, stairs and all architectural woodwork.

Sugar Pine comes in **3 select, 5 common, 4 factory grades.** Your local lumber dealer has it on hand—or can get it quickly from one of the Western Pine Association member mills.

the Western Pines
- IDAHO WHITE PINE
- PONDEROSA PINE
- SUGAR PINE

the Associated Woods
- LARCH
- DOUGLAS FIR
- WHITE FIR
- ENGELMANN SPRUCE
- INCENSE CEDAR
- RED CEDAR
- LODGEPOLE PINE

SP®

get the facts on SUGAR PINE
write for the FREE illustrated booklet to
WESTERN PINE ASSOCIATION, Dept. 303-U
Yeon Bldg., Portland 4, Oregon

You've seen this

BRIGGS BEAUTYWARE slogan

TWO BATHROOMS—

A MUST IN EVERY

MODERN HOME!

make it yours!

CORAL—A BRIGHT NEW COLOR—adds extra appeal to that extra Briggs bathroom! It makes the most of every handsome modern fixture, including Briggs' new slant-back built-in lavatory, the Lowell.

SELL COLOR VARIETY with Briggs Beautyware! Give your customers a change of pace with two bathrooms in *different* colors. They have a choice of Sandstone, Sky Blue, Coral or this gorgeous Sea Green.

The extra bathroom adds very little to monthly payments—yet no other feature adds so much value to a new home! It's second to none for quicker sales, bigger profits.

Folks are delighted when they see two bathrooms. They'll be even more pleased if you've specified Briggs Beautyware. These smart, modern plumbing fixtures can glamorize the entire house. Eye-appeal that lasts and lasts is a part of *every* durable Briggs fixture. Briggs Beautyware is acid-resistant, with handsome decorator colors that won't fade—even after years of hard use. You can *always* count on the high quality of popular Briggs plumbing ware.

Give home buyers the convenience of *two* bathrooms. And you'll find it's good business to equip them both with sales-making Briggs Beautyware!

©1954

BRIGGS MANUFACTURING COMPANY • DETROIT 26, MICHIGAN

BRIGGS

Sherwin-Williams Paints selected for new

EDGEWATER TOWERS!

In the new 2½-million-dollar Edgewater Towers Apartments overlooking Lake Erie on Cleveland's West Side, Sherwin-Williams Paints were selected for all interior and exterior painting. Over 400 tenants in 205 suites are enjoying the pleasing harmonies of Sherwin-Williams color.

There is a Sherwin-Williams product for every interior and exterior painting need . . . a paint product designed especially for the job specified. Ask your Sherwin-Williams Representative for your copy of *Painting Specifications and Buyer's Guide*. This handy book will relieve you of many of the details of specification writing and will assure you the finest finish available for the job.

Fridy, Gauker, Truscott and Fridy, Philadelphia, Pa.
—*Associate Architects*
Byrne Organization, Inc., Washington, D. C.
—*Builders*
The Wm. Downie Co.
—*Painting Contractor*

COVER THE EARTH

SHERWIN-WILLIAMS

ARCHITECTURAL SERVICE DIVISION
CLEVELAND 1, OHIO

Aluminum WINDOWS *by* GENERAL BRONZE

● BERGEN COUNTY VOCATIONAL SCHOOL
Hackensack, N. J.
Architect: Lawrence C. Licht
Contractor: A. A. LaFountain, Inc.

● SCHOOL BUILDINGS—whether for elementary schools, high schools or universities—must be designed for tomorrow's, as well as today's needs. They must provide good fenestration with continued low maintenance costs.

Aluminum windows by General Bronze satisfy all the requirements of good fenestration—maximum light, controlled ventilation, weathertightness, easy operation, permanent beauty and low maintenance costs for the entire life of the building. That's why the name GENERAL BRONZE has continued to be a byword in the window industry for many years.

QUALITY APPROVED

A.W.M.A. Quality Specifications—Materials, Construction, Strength of sections and Air infiltration requirements—confirmed by Pittsburgh Testing Laboratory.
MEMBER—ALUMINUM WINDOW MANUFACTURERS ASSOCIATION

Whether the new building you plan is a modern trade school, like the one shown here, a hospital, an apartment, a modern commercial building or a monumental type building, General Bronze offers you a wealth of practical experience in solving your problems as they pertain to windows, spandrels, curtain walls and architectural metalwork.

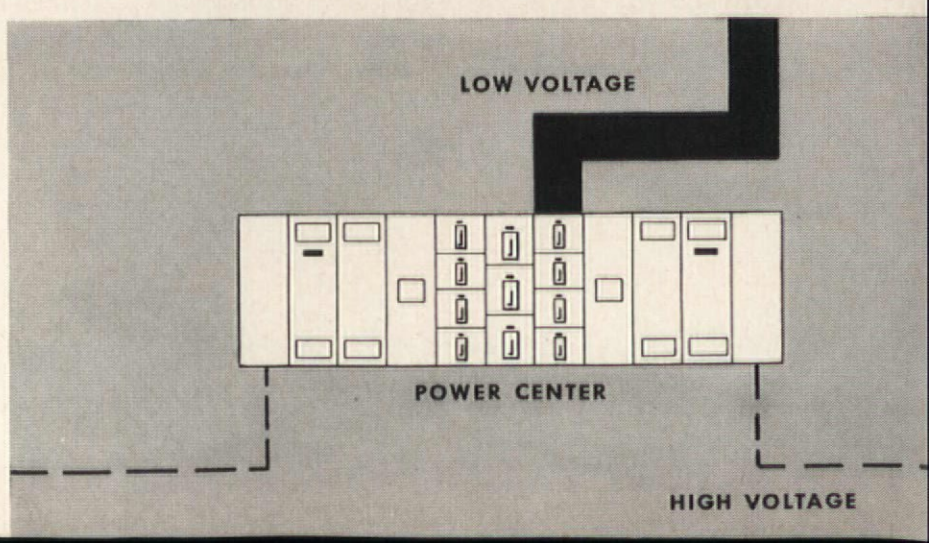
With a background of more than 40 years experience, working with hundreds of leading architectural firms, we have learned what features architects want in windows—what kind of help they appreciate most—what makes their job run easier and smoother.

Because of our unequalled facilities and our vast experience, we are well qualified to serve you, especially when your requirements are complex or unusual. We will be glad to discuss your problems with you at any time. Our Catalogs are filed in Sweet's.

GENERAL BRONZE CORPORATION

GENERAL BRONZE CORPORATION • GARDEN CITY, N. Y.

PERMATITE DIVISION—Custom-built Windows, Architectural Metal Work and Revolving Doors. **ALWINTITE DIVISION**—Residential Aluminum Windows.
BRACH MFG. CO. DIVISION—Multel, T. V., Radio and Electronic Equipment. **STEEL WELDMENTS, INC. DIVISION**—Custom fabrication in steel and iron.


LOW VOLTAGE
POWER CENTER
HIGH VOLTAGE

A DESIGN STANDARD LIKE THIS DEMANDS USE OF MODERN POWER

The standards being set in today's office building design call for full utilization of modern electrical power. It's an important consideration—in view of such necessities as high-speed elevators and modern lighting, the heating, ventilating and air conditioning systems.

These devices, as you know, have placed greater demands on a building's electrical system. *More* power must be carried. And power *quality* has had to be improved to minimize outages, assure well-regulated voltage.

Thus, a modern, completely adequate electrical system is extremely vital if the service devices you design-in are to operate at peak efficiency. Literally, it's an integral part of the building's foundation. It should be considered in the study stage . . . keyed to the services that will operate from it . . . built with equally modern electrical power equipment.

By so doing, you'll be bringing the power facilities up to the standards you've set for design. And you'll be providing your client with a better building—economically sound and adequately equipped to handle the many functions it must perform.

For assistance on modern electrical system planning, call the construction application engineer in your nearest Westinghouse Office. Westinghouse Electric Corporation, Construction Dept., Building 12-L, East Pittsburgh, Pa.

DP-5002-A

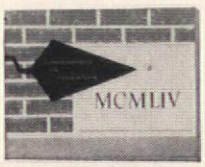
YOU CAN BE **SURE**...IF IT'S **Westinghouse**

WHAT IS A MODERN ELECTRICAL SYSTEM? It's an integral part of basic design—not superimposed or considered after the building is under construction.

The modern system is planned around requirements for reliability, versatility and convenience. And it stresses electrical characteristics essential to building services. Therefore, system design will vary—based on the type of building involved.

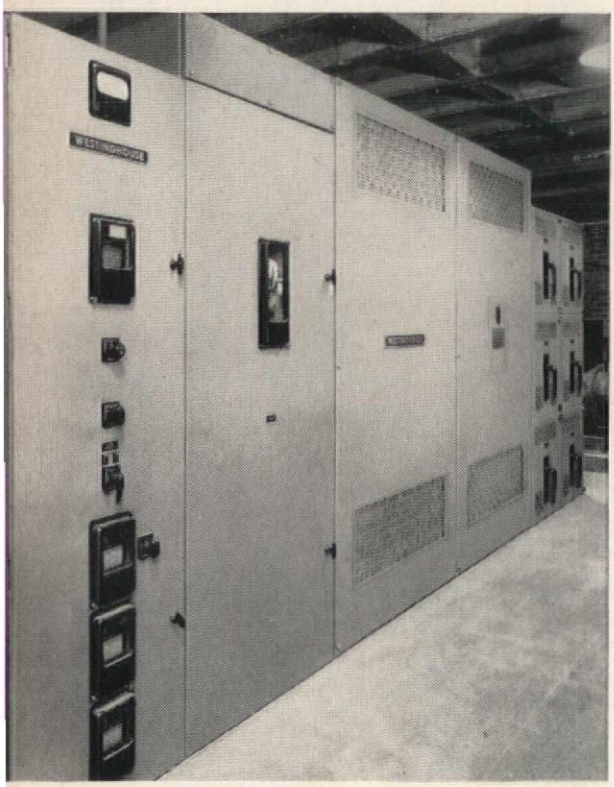
The Spot Network System, left, is an example. It emphasizes "reliability"—an important requirement in large office buildings. Efficient, high-voltage power is brought close to building loads from two or more sources. An electrical fault at one source will not interrupt power to the loads being served.

FOR YOU . . . 24-page book, covering modern electrical systems and equipment for commercial buildings. Valuable adjunct to your design planning. Write at no obligation for *Cornerstone or Tombstone*, B-6151. Westinghouse Electric Corp., 3 Gateway Center, P. O. Box 868, Pittsburgh 30, Pa.



AIM:

MATCH PEAK TRAFFIC WITH PEAK POWER



High-speed elevator service—demanded when tenants must be moved quickly during heavy traffic hours—should begin at the electrical system planning stage.

The need for completely adequate power distribution makes this so. Not only do high-speed elevators require *more* power, but their drives are usually located in the penthouse—far removed from the power source. Thus, the electrical system must carry *heavier* loads *greater* distances. Yet, it has to hold voltage and power losses to a minimum.

A typical way: *High-voltage* distribution—carrying high voltage from power source in the basement close to the electrical center of load in the penthouse. This modern practice stabilizes voltage. It eliminates line losses that result from long runs of secondary lines. It assures adequate capacity for heavy electrical loads.

At the center of load, then, high voltage is stepped down to operating levels with a Westinghouse Dry-Type Power Center. It installs anywhere to feed the elevator equipment and other local loads. No need for a vault. And the dry-type transformers and air circuit breakers minimize maintenance.

DP-5002-B

WESTINGHOUSE DRY-TYPE POWER CENTER . . .
a compact substation that permits high voltage to be carried close to elevator and other remote loads. Comes ready to install.

AIM:

MATCH MODERN AIR CONDITIONING WITH MODERN CONTROL

Modern air conditioning is another tenant demand completely dependent on the electrical facilities behind it.

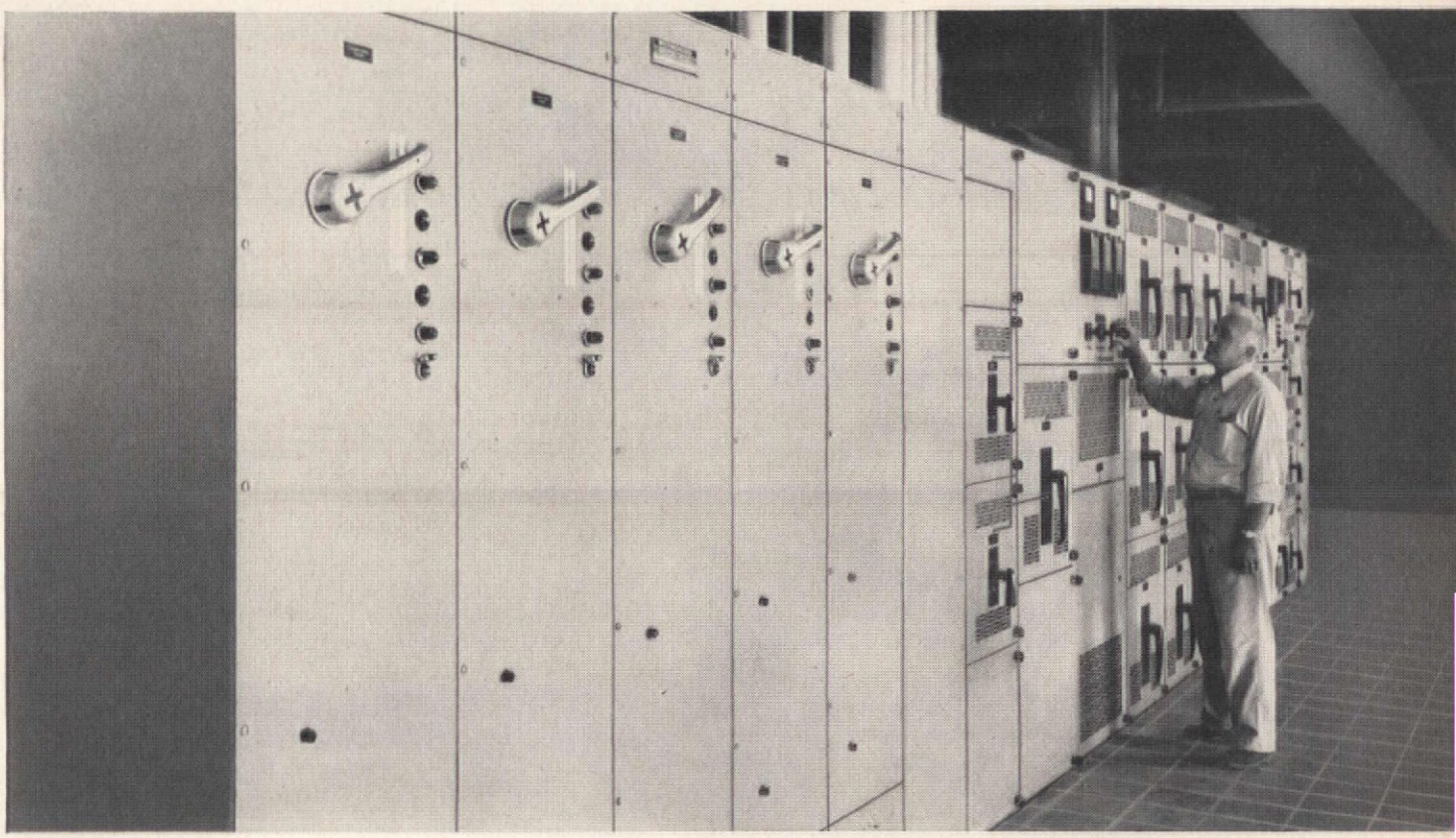
A number of motors and controls is involved in the modern air conditioning system. Thus, early steps should be taken electrically to assure continuous circulation of conditioned air—to the various building services.

In many modern buildings, all control equipment is located in one spot. This brings about easier operation and simplifies maintenance.

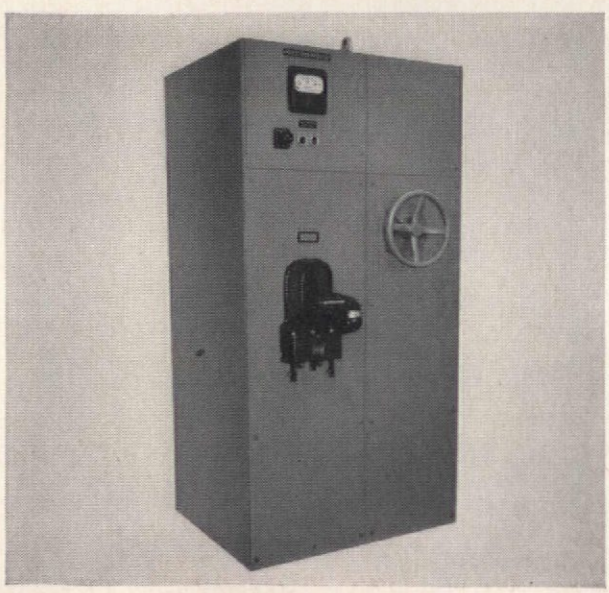
More complete integration of the controls is possible with a Westinghouse Control Center. It centralizes motor starting and protective devices in a compact enclosure that installs easily in any convenient location. Then, operating personnel can check operation of all motors at a glance.

In addition, Westinghouse Control Centers meet future requirements. This flexibility is due to standardized design and modular construction of the units.

DP-5002-C



WESTINGHOUSE CONTROL CENTER centralizes electrical control for building air conditioning systems in a single enclosure. At right: Secondary control for wound rotor motor drives . . . typical of the Westinghouse complete line of air conditioning compressor motor control.



YOU CAN BE **SURE**... IF IT'S

Westinghouse

AIM:

MATCH FIXTURES TO FUNCTIONS

Effective illumination demands this consideration: Lighting systems must be matched to functional requirements, yet blend harmoniously with building design.

This is particularly difficult in general office areas where sharp contrasts must be minimized. Thus, to keep contrast between fixture and ceiling down—to prevent specular reflection from shiny surfaces—indirect lighting is required.

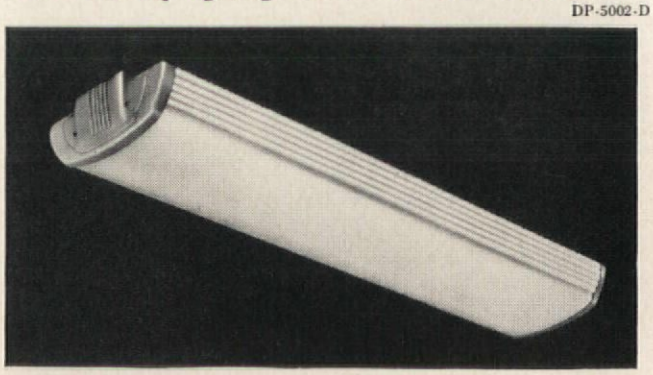
When you select the fixture, you must balance the desirability for comfort—obtained with indirect lighting—with the requirement for efficiency, realized through direct lighting.

Other factors also affect the selection. Fixture design and proportion and the ultimate lighting layout must blend with interior design.

Above is an outstanding example of how these considerations have been met. A Westinghouse CD-80 Luminaire was selected. It assures both comfort and efficiency by providing direct *and* indirect lumination. It blends well with room proportions . . . gives quality light for detailed office work . . . maintains the same high level of balanced design that exists throughout the building.

Architecturally, complete advantage was taken of the 10′ ceilings. Fixtures were suspended approximately 2′. This permitted installation of a comfortable system of continuous semi-indirect lighting. Today, it still maintains a desk-top lighting level of over 40 footcandles.

DP-5002-D



YOU CAN BE SURE...IF IT'S Westinghouse

AIM:

PROVIDE MAXIMUM RENTAL SPACE

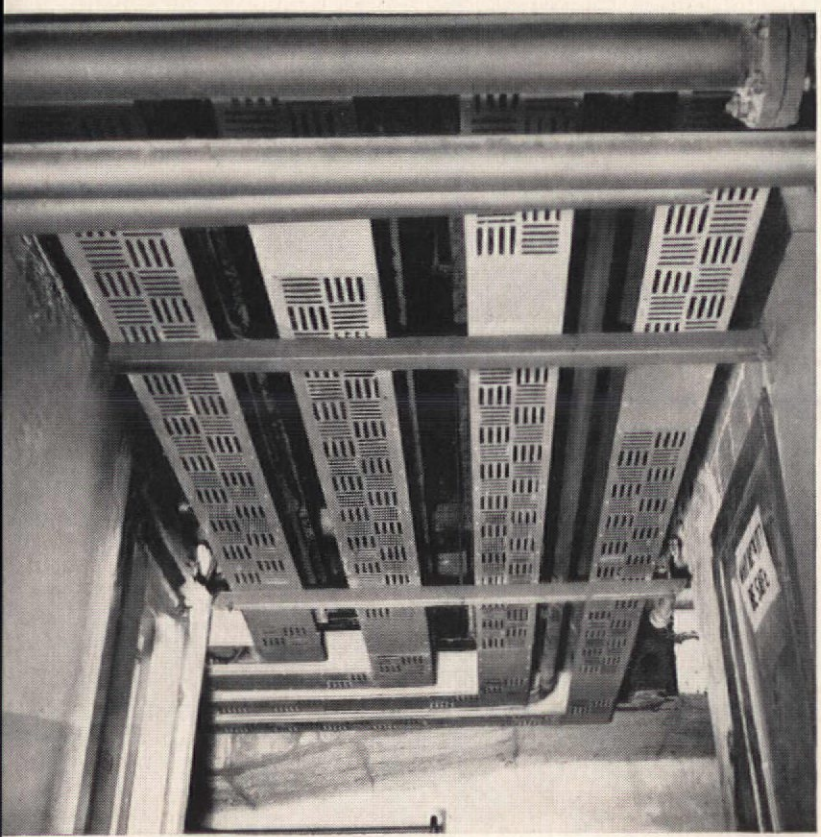
The heavier electrical loads elevator, air conditioning and lighting systems place on a building's power system make selection of its component parts a vital consideration. This equipment must have adequate capacity for increased loads. Yet, it should be compact to release maximum space to your client.

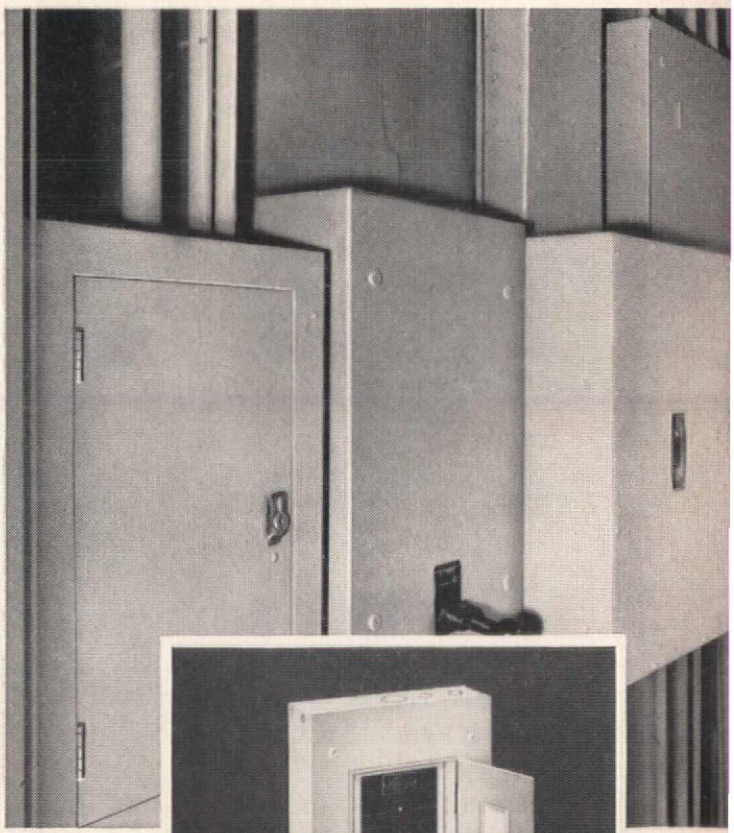
Modern distribution equipment answers these requirements. Example: Westinghouse Bus Duct—a highly efficient way to distribute low-voltage power. Up to 5000 amperes, in fact, it packs more power into less space than any other method of secondary electrical distribution.

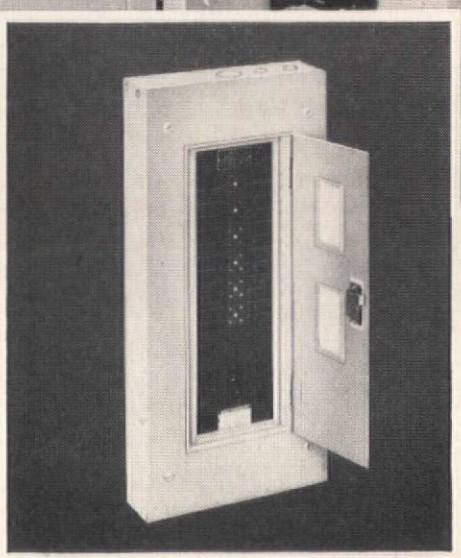
Westinghouse Bus Duct comes in standard, prefabricated sections that adapt perfectly with building plans. It can be installed in elevator shafts or wireways. When exposed, its neat appearance blends well with interior design.

The inherent flexibility of bus duct is another "plus". It provides adequate reserve capacity to handle future loads. Expensive rewiring is eliminated.

DP-5002-E







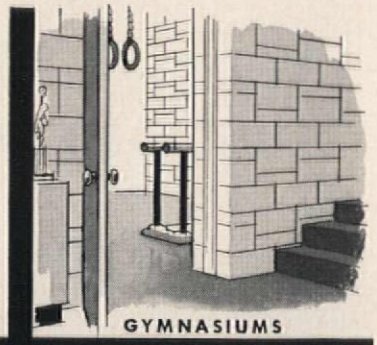
MATCH LIGHTING INSTALLATION WITH MODERN PANELBOARDS to give your clients both adequate protection and the convenience of circuit breakers. Westinghouse NPLAB-type lighting panelboard, here, features the compact Quicklag® P AB De-ion® circuit breaker. It enables you to design circuit protection into a smaller panelboard . . . and saves valuable closet space.

→ A complete acoustical treatment

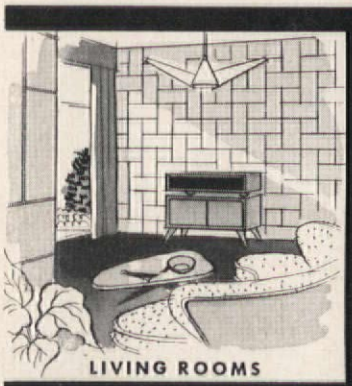
→ A decorative interior finish

→ An insulative structural wall

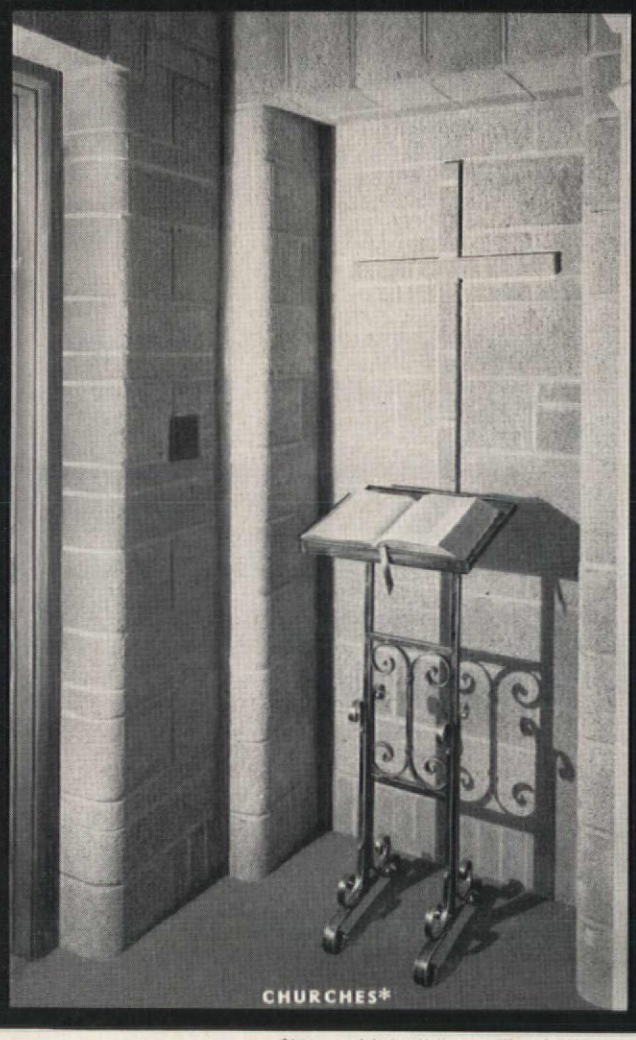
All at one low cost!



GYMNASIUMS

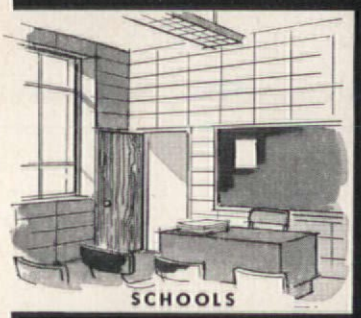


LIVING ROOMS

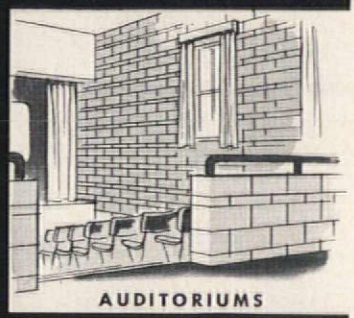


CHURCHES*

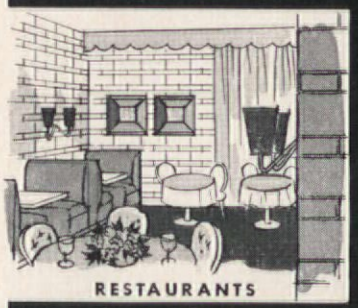
HOTEL LOBBIES



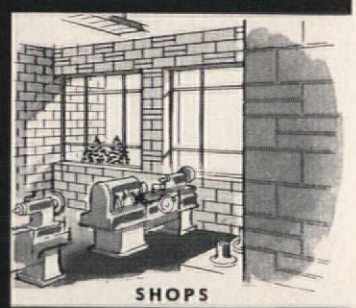
SCHOOLS



AUDITORIUMS



RESTAURANTS



SHOPS

*Diamond Lake Lutheran Church, Minneapolis; H. C. Hauser, Architect, Milwaukee

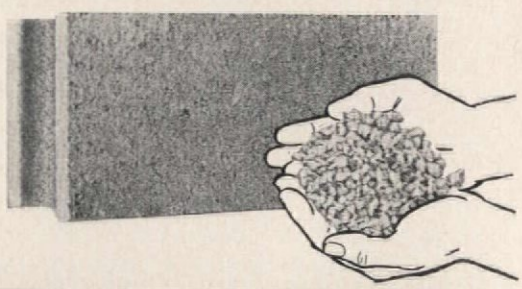
The great and growing popularity of Waylite Masonry structures is due to the combination of its several desirable qualities.

It *is* masonry. With all of masonry's desirable qualities . . . substantial . . . time- and fire-resistant . . . architecturally accepted throughout man's entire history.

But at this point the masonry characteristics of Waylite diverge. In Waylite Masonry, walls have a high thermal insulative quality that gives equitable room climate. The exposed surface of the units eliminates need for acoustical treatment. Decorative effect is easily achieved with varying sizes of units, laid in patterns; joint treatments; texture; colors. (See 24 pp. in Sweet's)

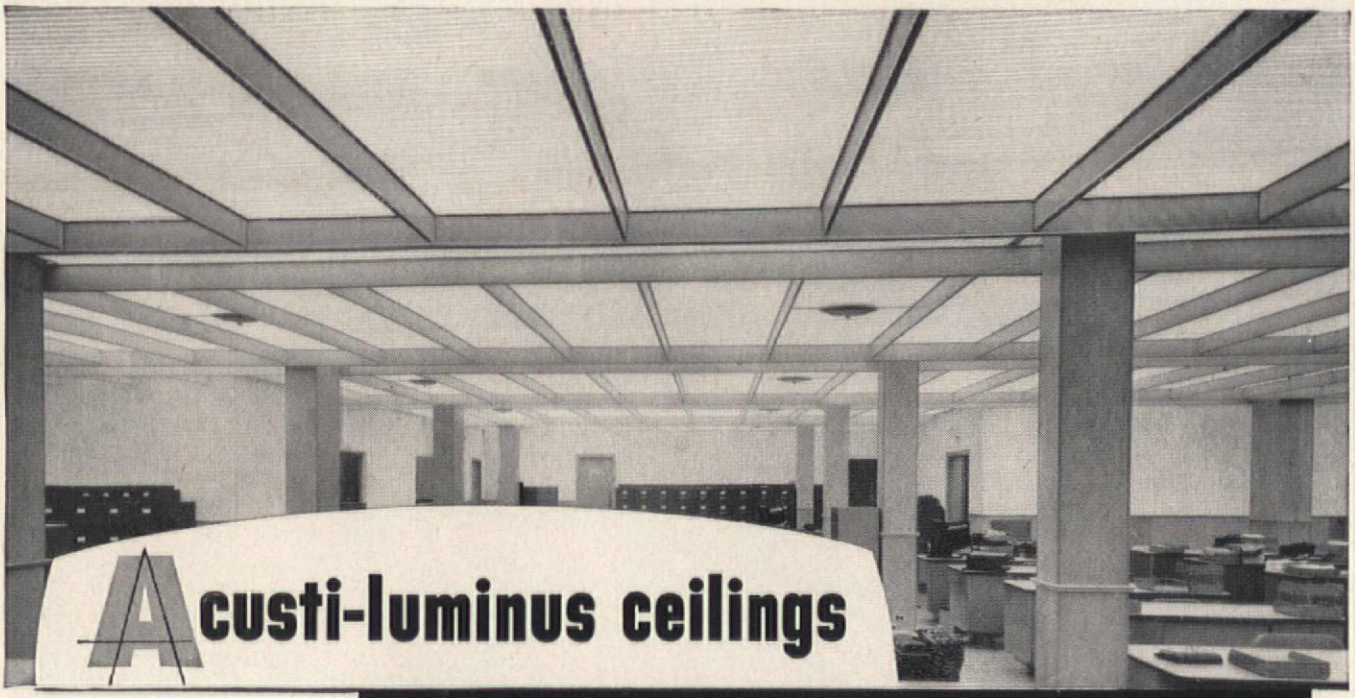
The low cost of Waylite Masonry comes in part from exclusive features of the raw aggregate material and large volume processing economies; and also in part from modern high-speed machinery and methods in the products plant.

Complete engineering and designing data is available. Address the Waylite Company, 105 W. Madison St., Chicago, or Box 30, Bethlehem, Pa.



WAYLITE

MASONRY UNITS



Acusti-luminus ceilings

give you low-cost control of light, sound, and air flow!

ABOVE—new general offices of the DORMEYER CORP., Chicago. This space was formerly an old loft cluttered with beams, pipes, ducts, and sprinklers. Now all these are hidden by the Acusti-Luminus Ceiling. ARCHITECT: Victor L. Charn, Ragnar Benson, Inc., Engineers and Builders, Chicago.

INSTALLED BY LEADING FIRMS COAST TO COAST!

Here are a few of over 2800 installations in 37 states—in factories, offices, drafting rooms, critical work areas, stores, banks, schools, libraries, utilities, and public buildings:

American Airlines, Inc.
American Broadcasting Co.
American Cyanamid Co.
Boston Edison Co.
Chattanooga Power Co.
CBS (Television City)
Consolidated Vultee Aircraft Corp.
John Deere Co.
Douglas Aircraft Co., Inc.
Filene's of Boston
General Motors Corp.
National Broadcasting Co.
Republic Aviation Corp.
Trans World Airlines, Inc.
Union Carbide and Carbon Corp.
Zellerbach Paper Company

You solve *three* problems when you specify modern Acusti-Luminus Ceilings—

1. EVENLY DIFFUSED LIGHT! Actually superior to daylight! *No shadow! No glare!* This uniform diffusion is achieved by suspending lightweight corrugated sheets of Lumi-Plastic below fluorescent lights. The result is a solid "ceiling of light"—low in brightness—of any intensity!

2. EXCELLENT SOUNDPROOFING! Acoustical correction is provided by noise-absorbing Acusti-Louvers which may be hung at intervals below the Lumi-Plastic. These fins also louver out the view of the ceiling.

3. LOW VELOCITY AIR FLOW! The plenum above the Acusti-Luminus Ceiling may serve as an air supply source for both heating and air conditioning. Provides extremely low velocity distribution of conditioned air—through ⅛-inch air spaces—without the use of grilles or diffusers.

Install UNDER sprinklers! Labeled by Underwriters' Laboratories for installation *under* sprinkler systems—with no change in fire insurance rates. In event of fire, the plastic (which does not support combustion) softens and falls to the floor so sprinklers function normally.

Does so much—costs so little! Both initial cost and maintenance costs are less than for conventional ceilings with the same illumination and sound correction.

For remodeling or new jobs! In old buildings, it hides pipes, cracks, ducts, and other eyesores. In new construction, it offers unlimited design possibilities. For more information, mail coupon below.

see our catalog in SWEET'S ARCHITECTURAL FILE or write for copy

mail coupon for FREE BOOKLET!

NATION'S LEADING PRODUCER OF LUMINOUS CEILINGS

Luminous ceilings inc.

HOME OFFICE: 2500 W. NORTH AVE., CHICAGO 47, ILLINOIS

DISTRICT OFFICES

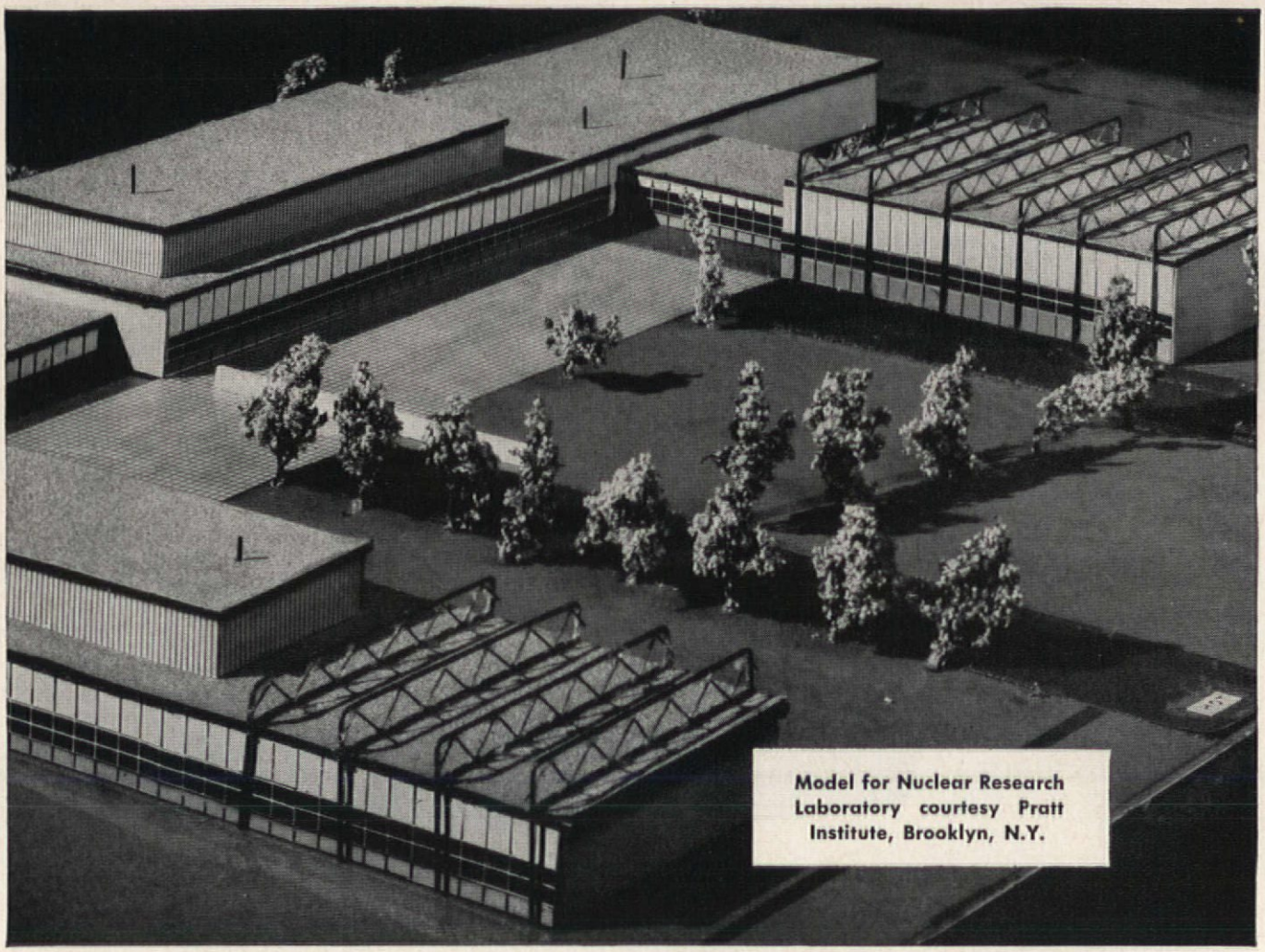
NEW YORK	CLEVELAND	LOS ANGELES	SAN FRANCISCO
BOSTON	WASHINGTON, D. C.	KANSAS CITY	SEATTLE
PHILADELPHIA	DETROIT	CHATTANOOGA	TULSA
PITTSBURGH	ST. LOUIS	SALT LAKE CITY	MONTREAL, CANADA

LUMINOUS CEILINGS INC.
2500 W. North Avenue
Dept. AR5, Chicago 47, Ill.

Please rush me a copy of your FREE illustrated booklet giving more information about Acusti-Luminus Ceilings.

NAME_____
FIRM_____
TITLE_____
ADDRESS_____
CITY_____ ZONE____ STATE_____

© LUMINOUS CEILINGS INC., CHICAGO, ILL. 1954



Model for Nuclear Research Laboratory courtesy Pratt Institute, Brooklyn, N.Y.

How to roof a Nucleonics lab

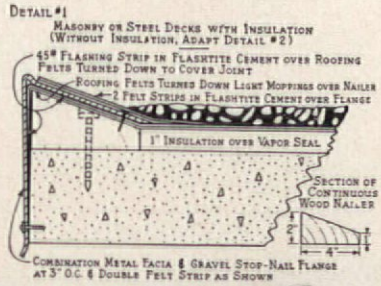
The A.E.C. has released some fissionable ideas to industry. As a result the new field of nucleonics now boasts some 85 companies.

Housing these new research and development industries puts a burden on the architect in solving their highly specialized needs.

One burden you can be free from, however, is the specification of the right roof. All isotopes aside, the real problem of roofing a flush deck building, like the one above, is usually in such details as how to avoid eave drippage.

You'll find the answer to that and other problems, such as the utilization of valuable roof areas for recreation, play, parking, water-cooled roofs, or roof gardens, in Ruberoid's Built-Up Roofing Specification Book. Architects rely on it for complete roof "specs" for smooth-surfaced asbestos, coal tar pitch with gravel or slag surfacing, or gravel-and-slag surfaced Ruberoid Special Bitumen. It also contains practical working details for a wide variety of flashing and eave construction. Write for your free copy to The Ruberoid Co., 500 Fifth Avenue, New York 36, N. Y.

Typical detail from Ruberoid Specification Book To Prevent Pitch Drippage



The RUBEROID Co.

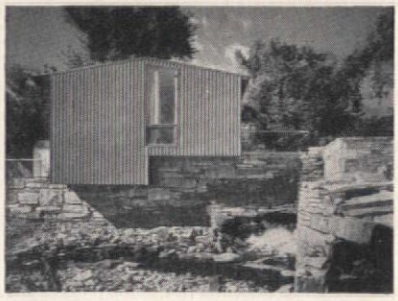
ASPHALT AND ASBESTOS BUILDING MATERIALS

HOUSE DESIGN: STRESSING "DELIGHT"

VIEWING CURRENT house architecture in a broad, objective sense one could easily find himself mumbling about "confusion." And, if he happened to feel in a negative mood, he could dwell upon certain inadequacies in the "modern" approach to house design; he might cite, with wrinkled nose, the supine acceptance of the cliché, and work himself into a nice tizzy.

On the more positive side, were he disposed toward cheerfulness, he might find much to nourish that mood. He might observe, for example, that the cliché work was done, as always, by the followers, not the leaders; he might even find grounds for encouragement in the fact that new ideas were gaining ground in this familiar way. He might then observe that much creative work was also being done. With his eyes thus turned upward, he would certainly find architects to whom the principles of contemporary design meant creative freedom, not restrictive dogma. He could find architects to whom the sweeping away of Victoriana did not mean sterile emptiness but rather preparation for new delights to go along with the "commodity and firmness." He might then, in exalted mood, mount his soapbox and proclaim that modern architecture was moving forward in many new and exciting and delightful paths. He might even shout, "Confusion? Let's have more of it."

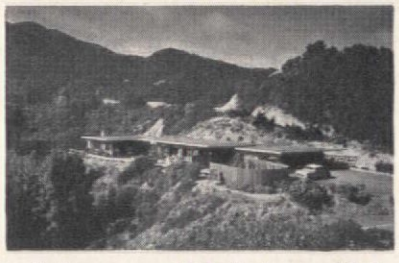
For the following pages, RECORD editors have selected houses that must give their owners a full measure of "delight."



© Ezra Stoller

1

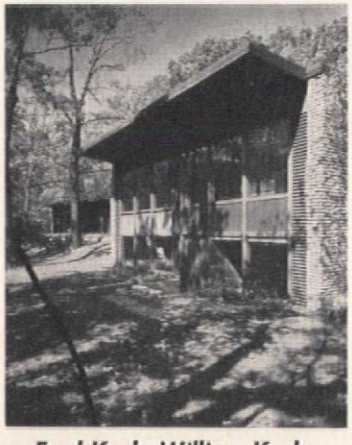
Carl Koch and Associates (see page 140)



Morley Baer

2

John Funk, Lawrence Halprin (page 144)



Hedrich-Blessing

3

George Fred Keck, William Keck (page 150)

Edward D. Stone, Karl J. Holzinger, Jr. (page 154)

4

Ben Schnall

Richard Gordon (page 158)

5

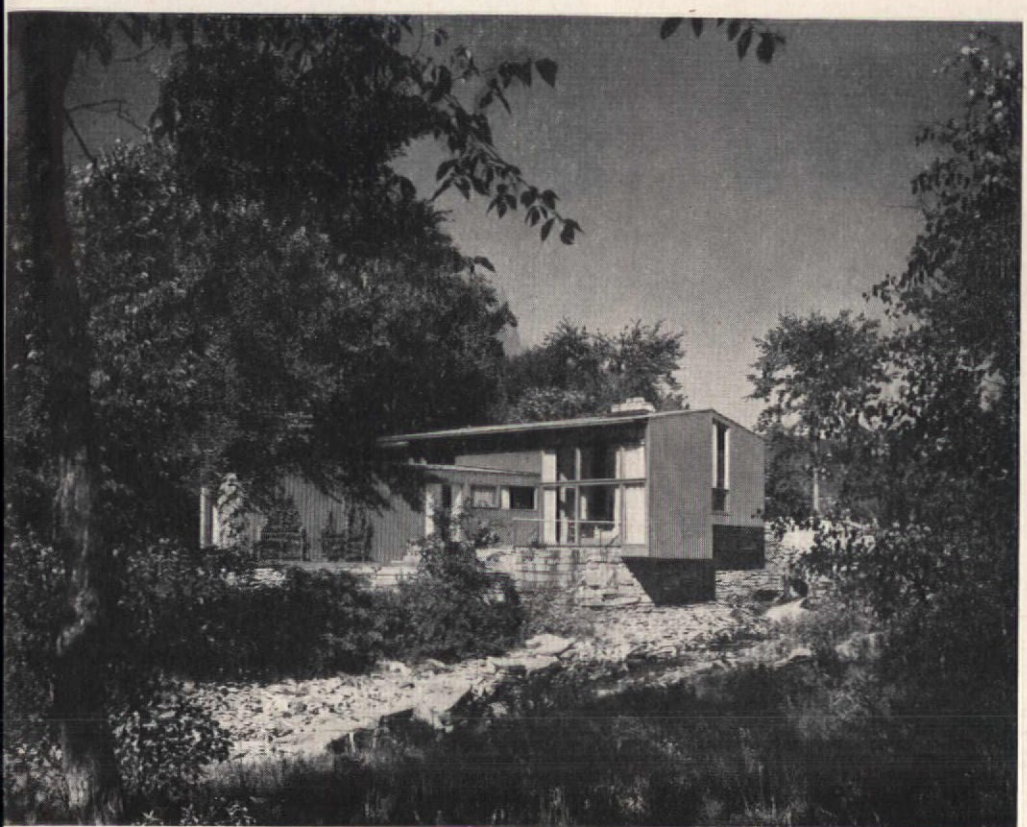
© Ezra Stoller

DEVELOPING THE "DELIGHT" OF A VERMONT SITE

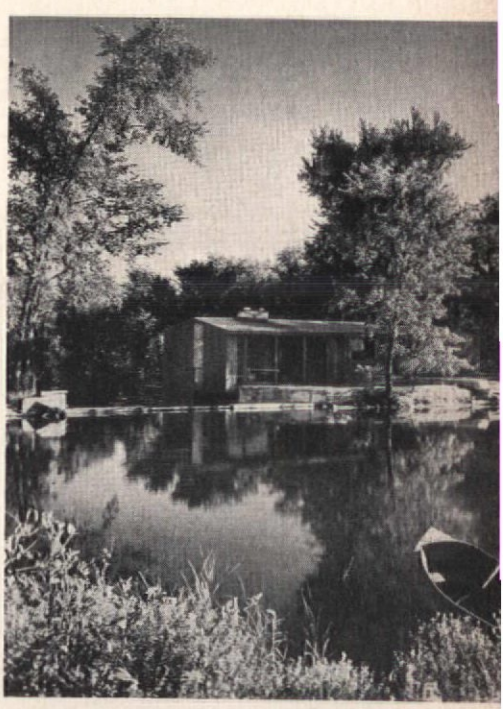
Residence for Mr. and Mrs. James Parton, Dorset, Vt.

Carl Koch and Associates, Architects

IT WOULD BE DIFFICULT to find a house that better illustrates the freedom of the contemporary architect to develop the theme of "delight" with full sympathy for the wishes of the owner and the assertive regional character of the site. The "restriction" placed by the owner was "that the house should not conflict in its appearance too radically with its local surroundings or in such a way that the conservative Vermont residents would throw up their hands in horror." The architect continues, "the house was designed to fit the slope of the existing mound to the southwest of the dam and was to be built on three levels. . . . We used a slightly pitched roof and board and batten siding both because of our own preference and in order to give the house a Vermont character."

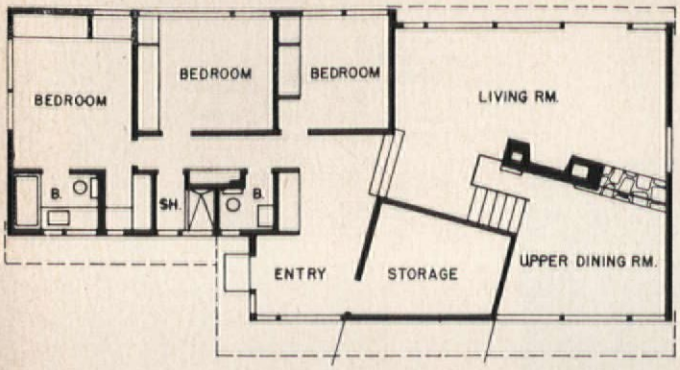


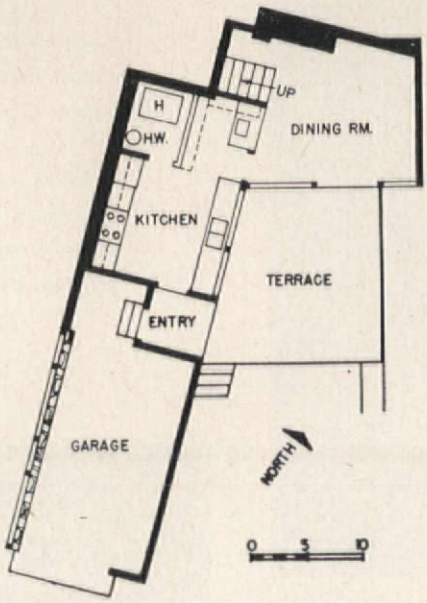
Property is the site of an abandoned marble-cutting mill, comprising six and a half acres at the south end of a 15-acre pond. Mill is long since gone, but the dam of marble remains, and brook is faced with marble blocks



At upper level, living room is cantilevered out over the brook. House follows contours as it recedes from the dam, dining room and kitchen being a few steps lower than living room, bedrooms at a still higher level

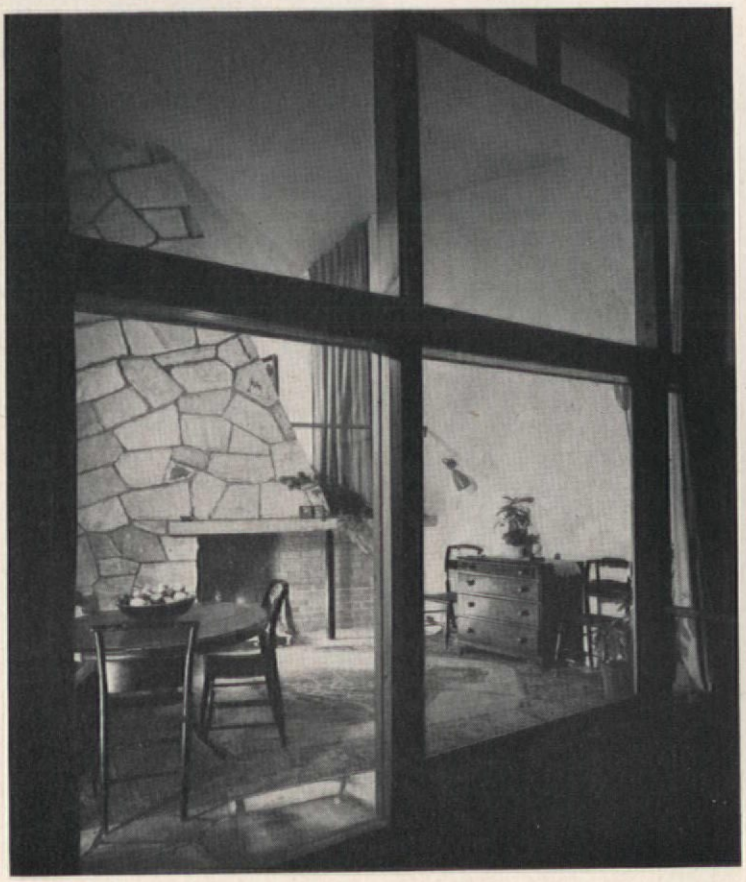
© Ezra Stoller



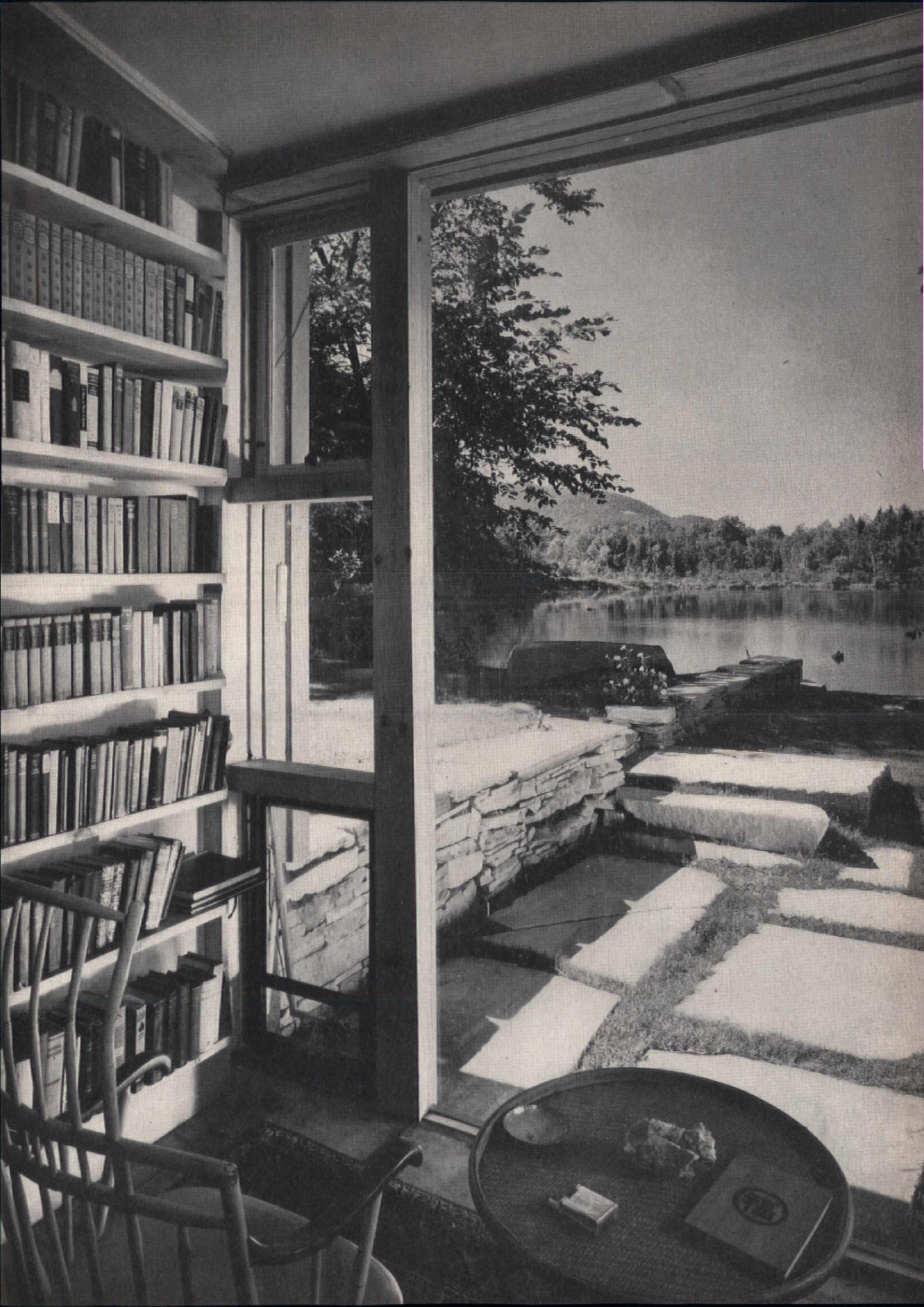


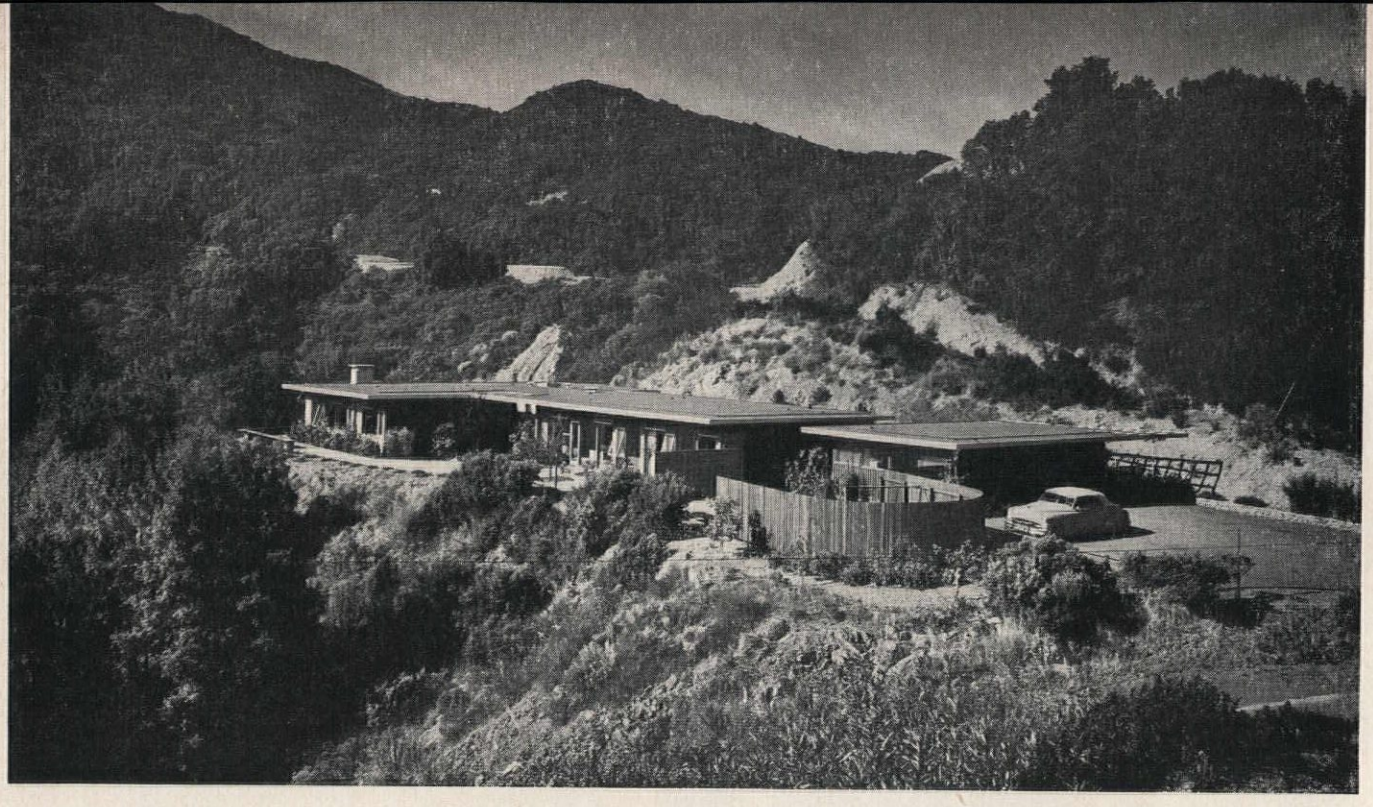
Fireplaces and floors in dining and living rooms are of native marble from the site, also the terrace at dining-room level. House is for a retired couple whose desire for a contemporary house did not extend to stylistic notions such as throwing away their furnishings and possessions

PARTON HOUSE: CARL KOCH AND ASSOCIATES



© Ezra Stoller

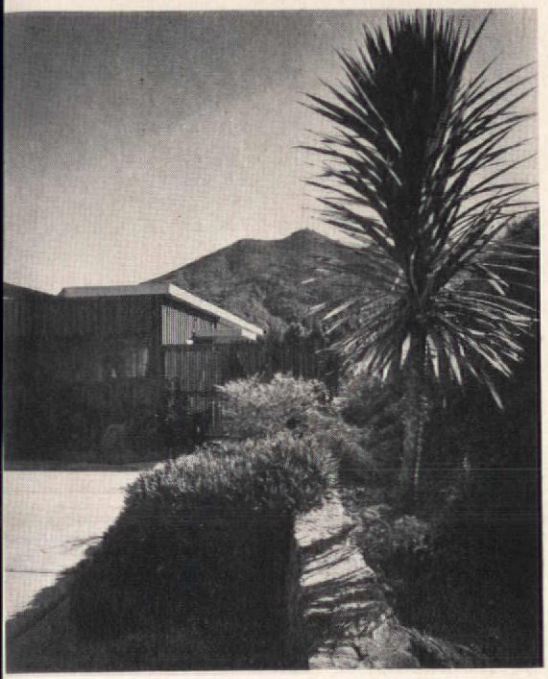




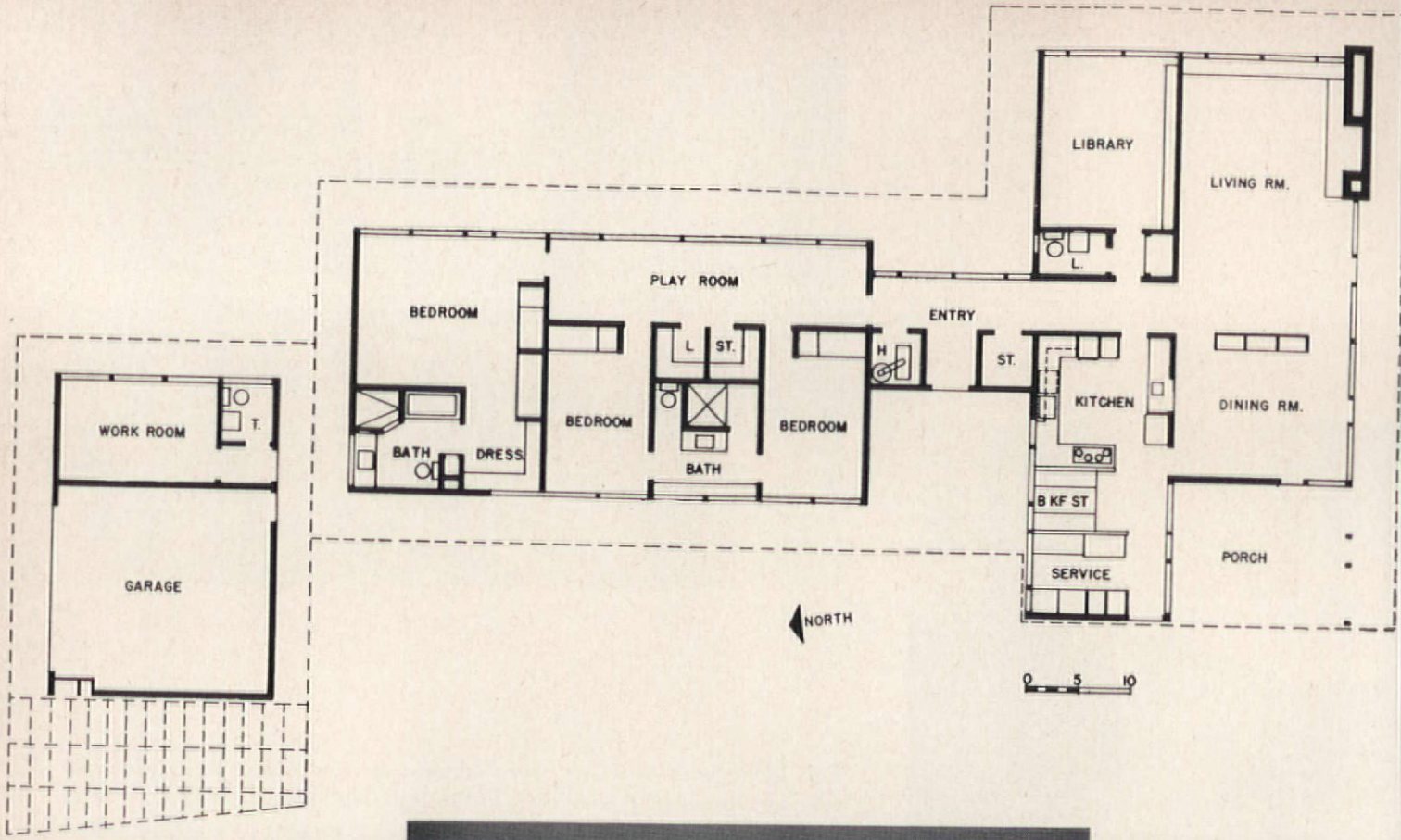
DESIGNED FOR BOTH FOREGROUND AND BACKGROUND

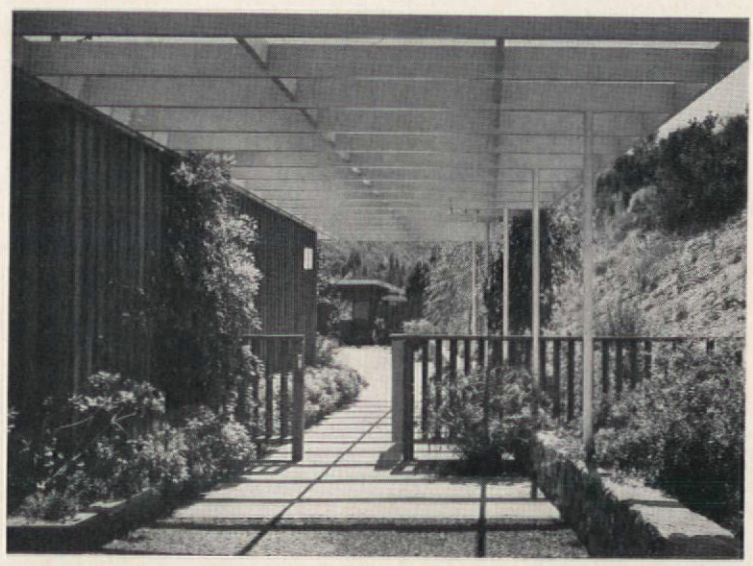
Residence for Mr. and Mrs. John Woerner, Kentwoodlands, Cal.
John Funk, Architect; Lawrence Halprin, Landscape Architect
A. Curley Henrickson, General Contractor

Morley Baer



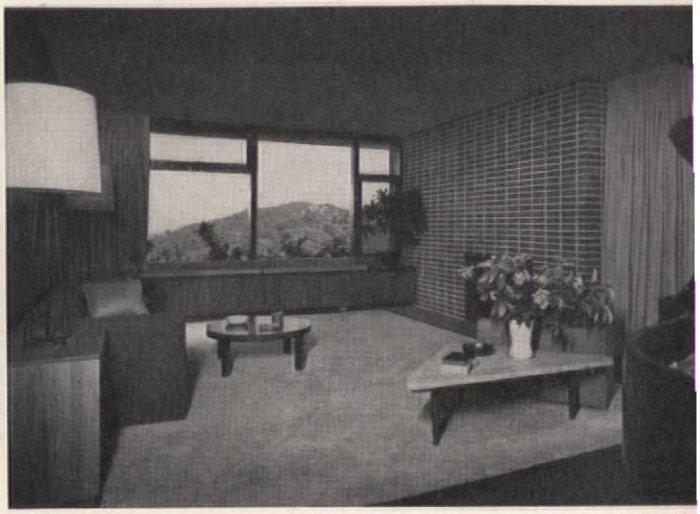
This house both defies its overwhelming site and defers to it, while developing its scenic possibilities to the full. The defiance may be seen in the assertive manner in which the house takes its own form, perhaps also in its insistence on a close-in landscaped beauty spot for outdoor living as well as for bowing to Mt. Tamalpais or scanning San Francisco Bay. The distant views are nevertheless terrific, and the house and its gardens together certainly do not neglect those stimulating items. The landscaping still develops the pleasures of myriad growing things, of paved terraces for both adult and children's outdoor enjoyment, for full participation with the outdoors. The landscaping offers both profusion and variety to delight the eye, and then, working outward from the house, tends to blend imperceptibly with the distant landscape.



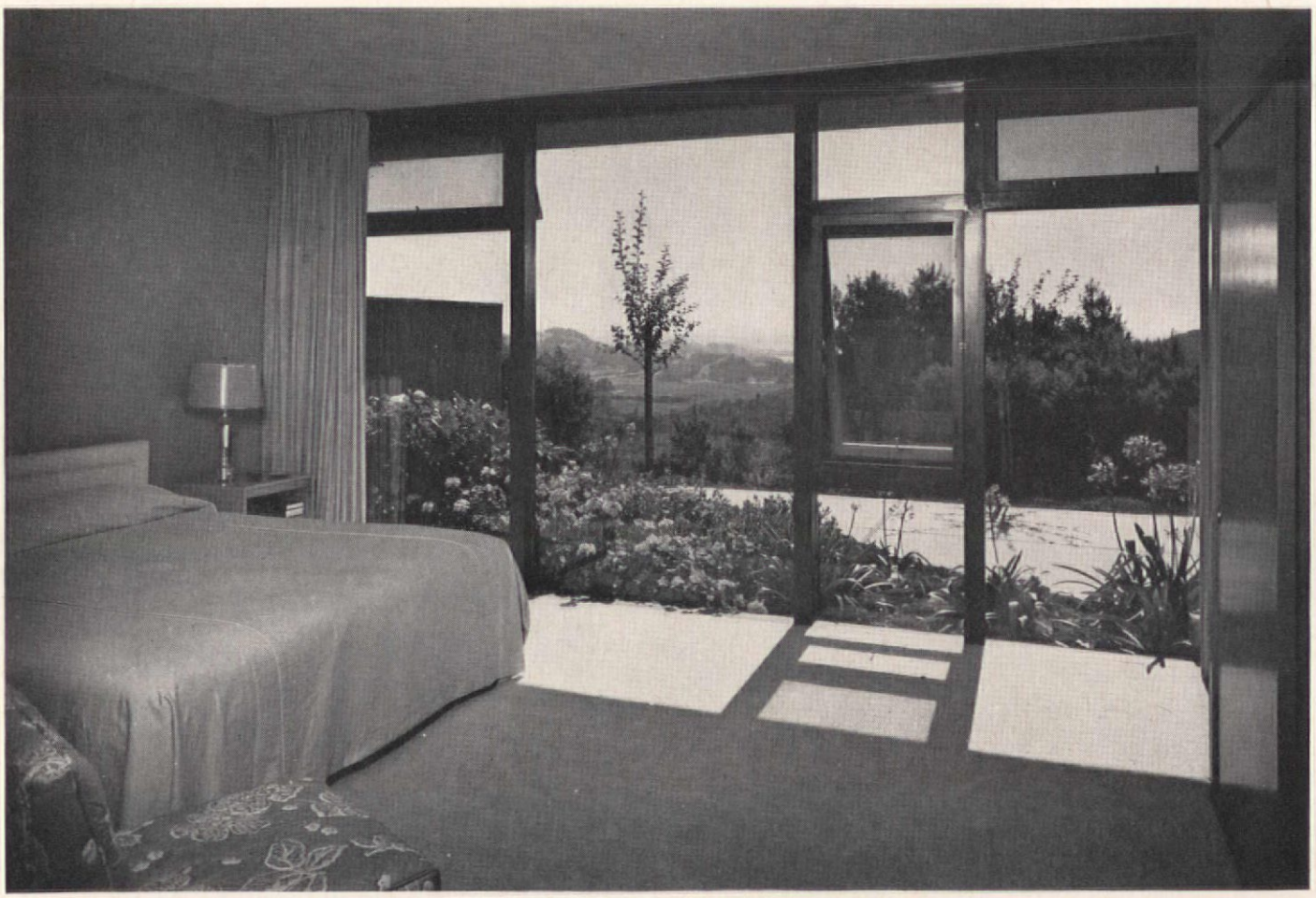


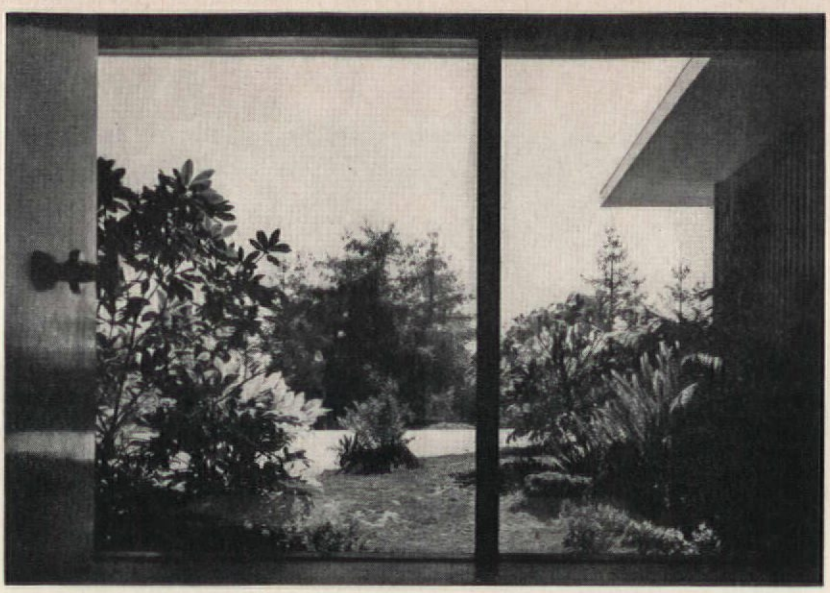
Morley Baer

A partly sheltered walkway leads (above) from parking court to entrance, with wisteria climbing the garage wall. Closer to the entrance (below) the walk widens into landscaped court

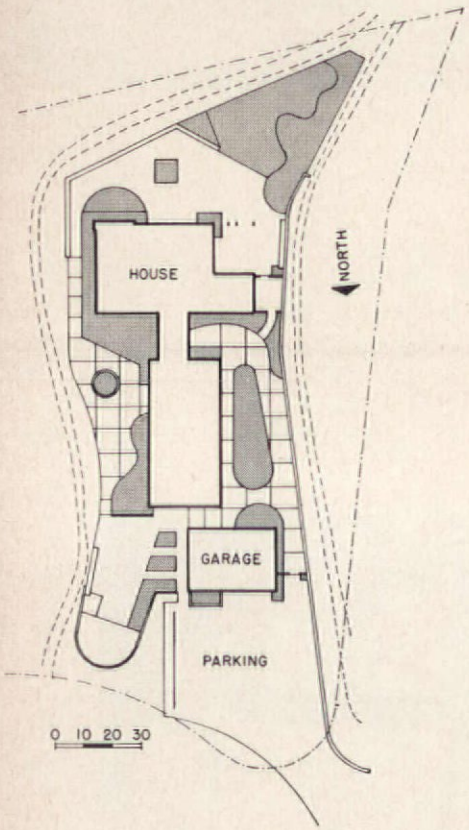


House interiors, if more formal and severe than the gardens, have the graciousness of great spaciousness. Living room looks out at that all-pervading mountain, is partially screened from dining room by cabinets. Both dining and living room have plenty of glass facing the views. Bedroom wing faces the Bay, with low plantings in foreground, small trees off a bit farther to frame the view toward the water

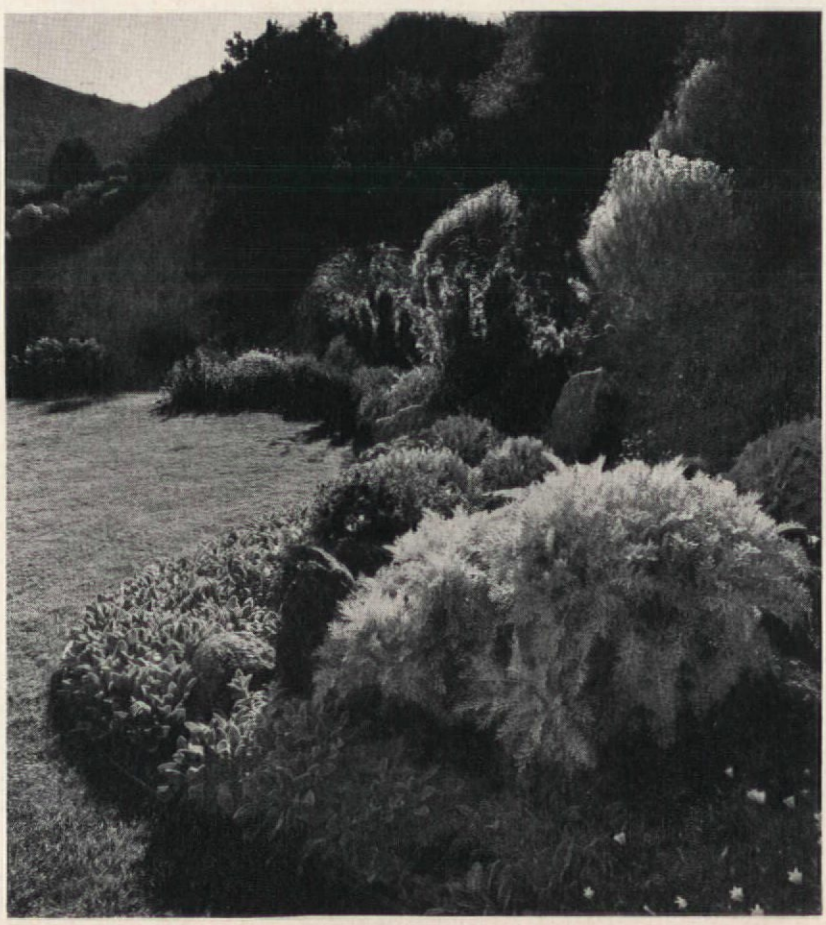




Morley Baer



Glass walls open the house to an intricate arrangement of paved terraces and garden beds and lawns. Many of the outdoor "rooms" are connected, sometimes by walks, sometimes only by planting boxes or beds. Other areas are closed off for privacy or for utilitarian purposes by board fences. There is seemingly endless variety in the plantings — flowers, shrubs, trees, grasses, vines. There is variety, too, in paving materials, in garden rocks and walls, in beds and stands, in colors and textures of inert and growing materials. But the varieties are blended and integrated by choice of textures and forms. Colors are also used in continuous blends and gradations to achieve continuity and to make the whole recede gradually into the hillsides.



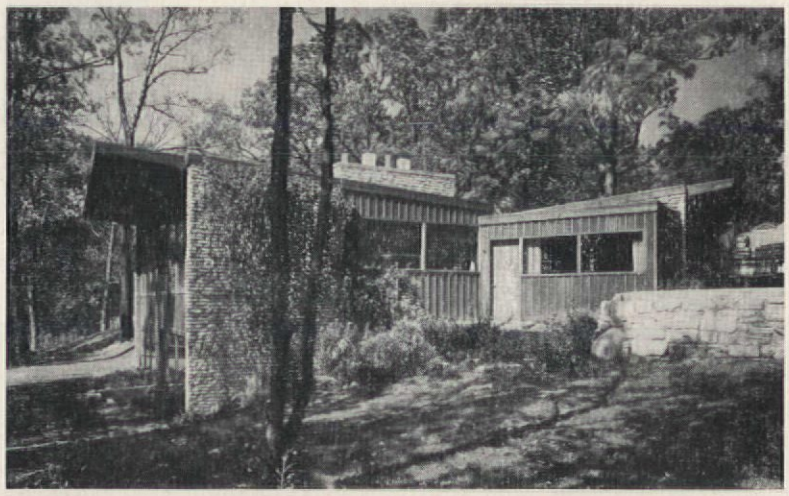
Morley Baer

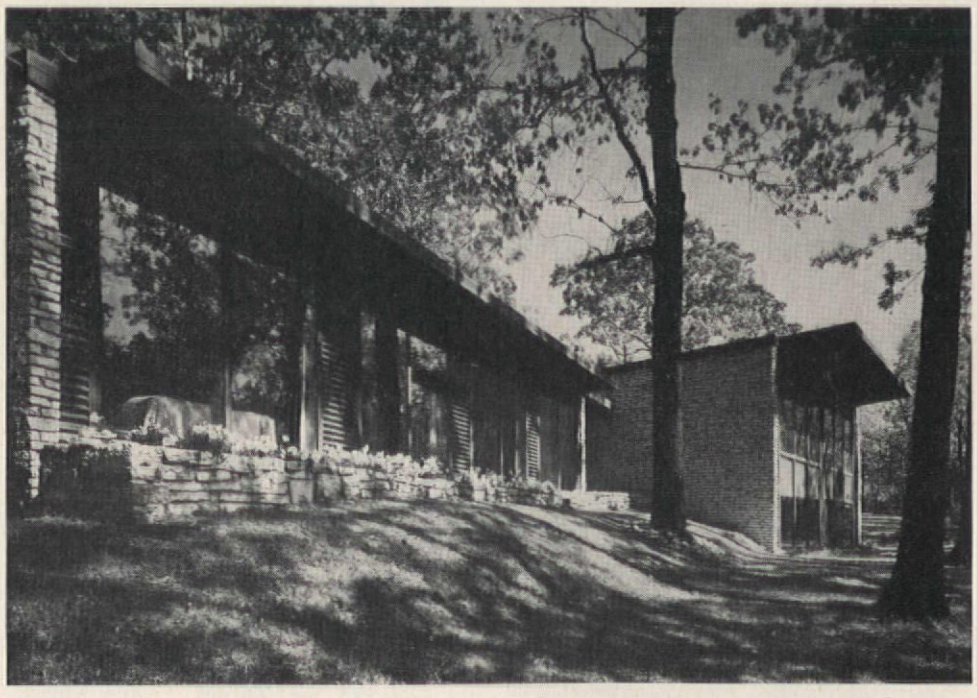
AN INNOVATION IN OPEN PLANNING

Residence for Mr. and Mrs. John C. Telander, Hinsdale, Ill.

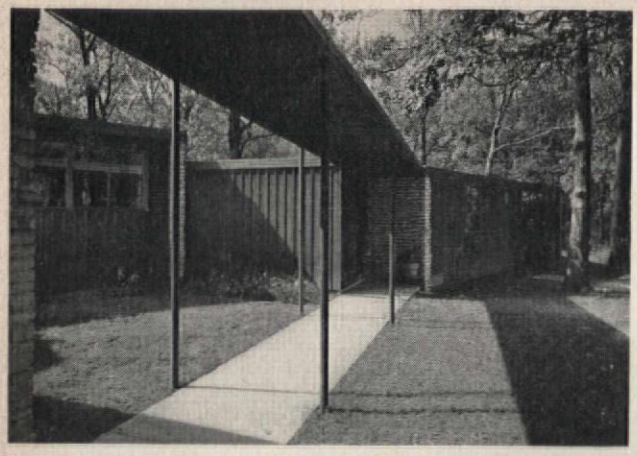
George Fred Keck, William Keck, Architects

If anybody doubted the "delights" of modern architectural thinking, a single feature of this house might dispel his gloom. The view opposite shows the lower portion of a two-level living room, with a playful stairway joining the two portions, and with a two-story glass wall offering a truly huge view of the woods. This innovation in open planning the architect designates in his notes as two different spaces — living room and recreation room. One can imagine, however, that on occasion the two would flow together more actively than in the visual sense only. In general the house does not seem to bow to style, unless creativeness itself is a style.

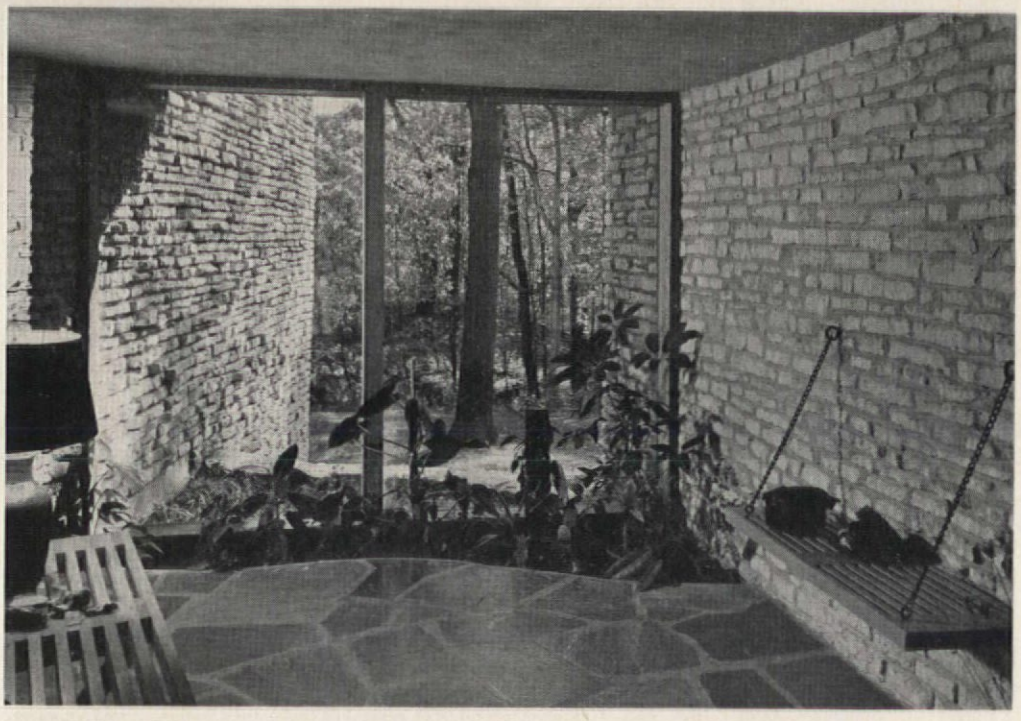




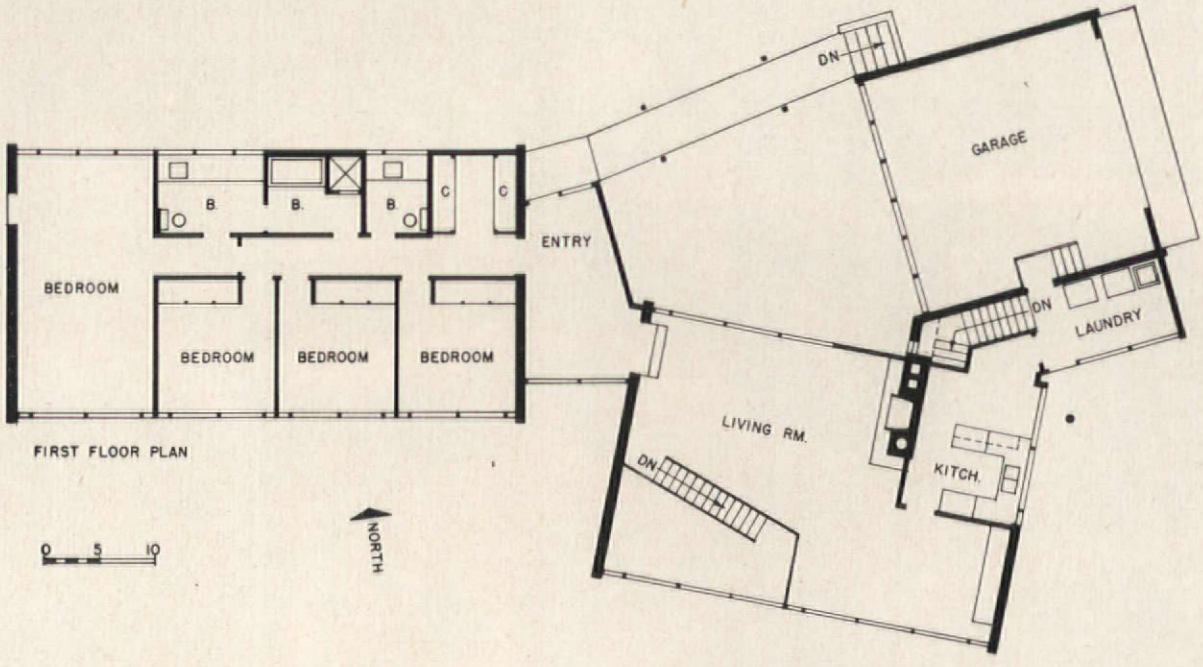
Hedrich-Blessing

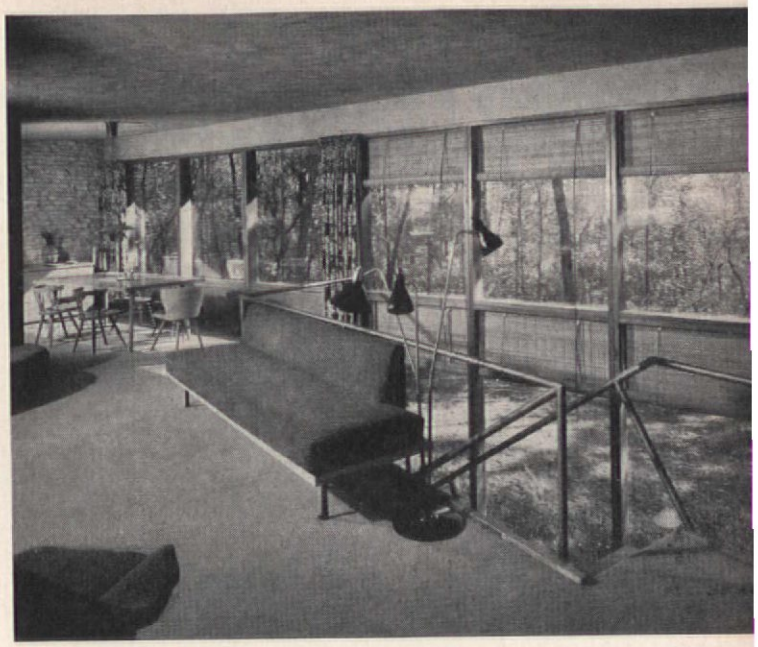


TELANDER HOUSE: GEORGE FRED KECK, WILLIAM KECK



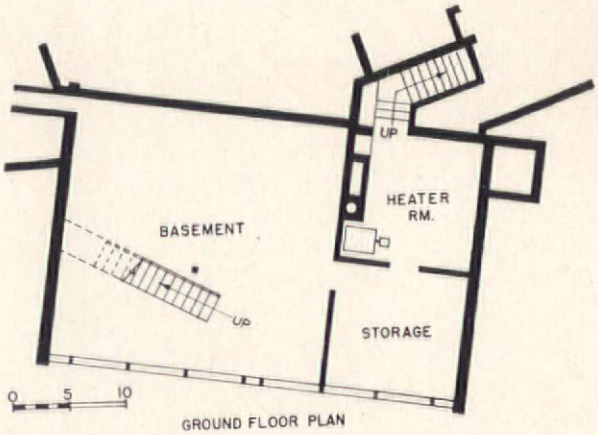
Bedroom wing is isolated from the rest of the house by a large entrance foyer (above) which, with its brick walls, stone floor, and planting, gives a sense of being outdoors, strengthening the feeling of separation





Hedrich-Blessing

Dining room, as an open extension of the living room, has its own identity, but still adds to the spaciousness of the living room. Thus three spaces — dining, living, recreation — flow together spatially but still maintain their individual purposes



GROUND FLOOR PLAN

HOUSE DESIGNED TO WARM THE WINTER SCENE

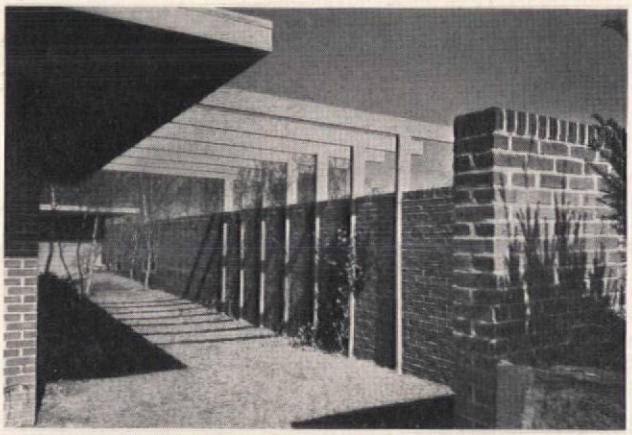
Residence for Mr. and Mrs. Fred Maduro, Great Neck, Long Island

Edward D. Stone, Architect; Karl J. Holzinger, Jr., Associate

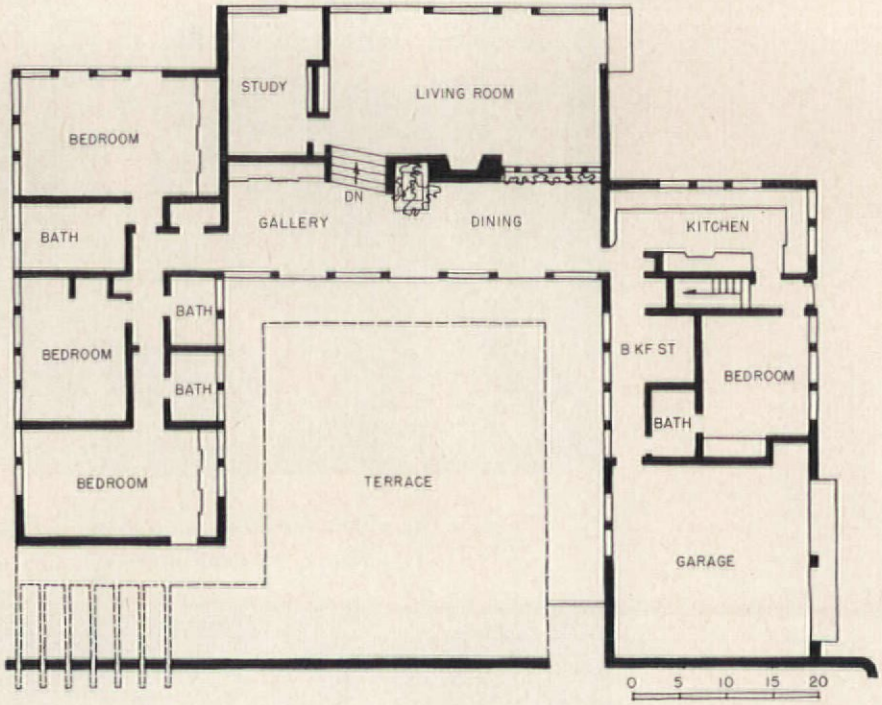
Ben Schnall

What the client really wanted here was a tropical house on Long Island, and the architects have managed to transplant a number of tropical features, or at least reminders, without doing violence to the essential conditions. Without, moreover, merely contriving a stage setting. The owners, born in Panama, found New York winters especially trying, and the house subtly woos them to an enjoyment of the winter scene. There is a sense of protection, for example, in wide overhangs, which, psychologically if not physically, keep the snow and ice farther from the house. There is the same sense in the enclosed patio, itself a feature dear to the Latin-American heart. Radiant heat made its own contribution. And indoor planting certainly is a subtle reminder of a warmer clime. Perhaps more important than these more tangible things, however, is a general charm in the interiors — the fireplace wall, for example — which could scarcely be called romantic but which are obviously warm and appealing.

Main entrance is through enclosed patio. House has many subtle features to remind owners of their birthplace, Panama



MADURO HOUSE: EDWARD D. STONE



Patio enclosed at the front by 6-ft brick wall provides a sheltered area for outdoor living as well as privacy from driveway. Full height windows are used along dining gallery, high windows for bedrooms and bathrooms. Wide overhang is reminiscent of Latin-America, tends to keep snow away from glass walls

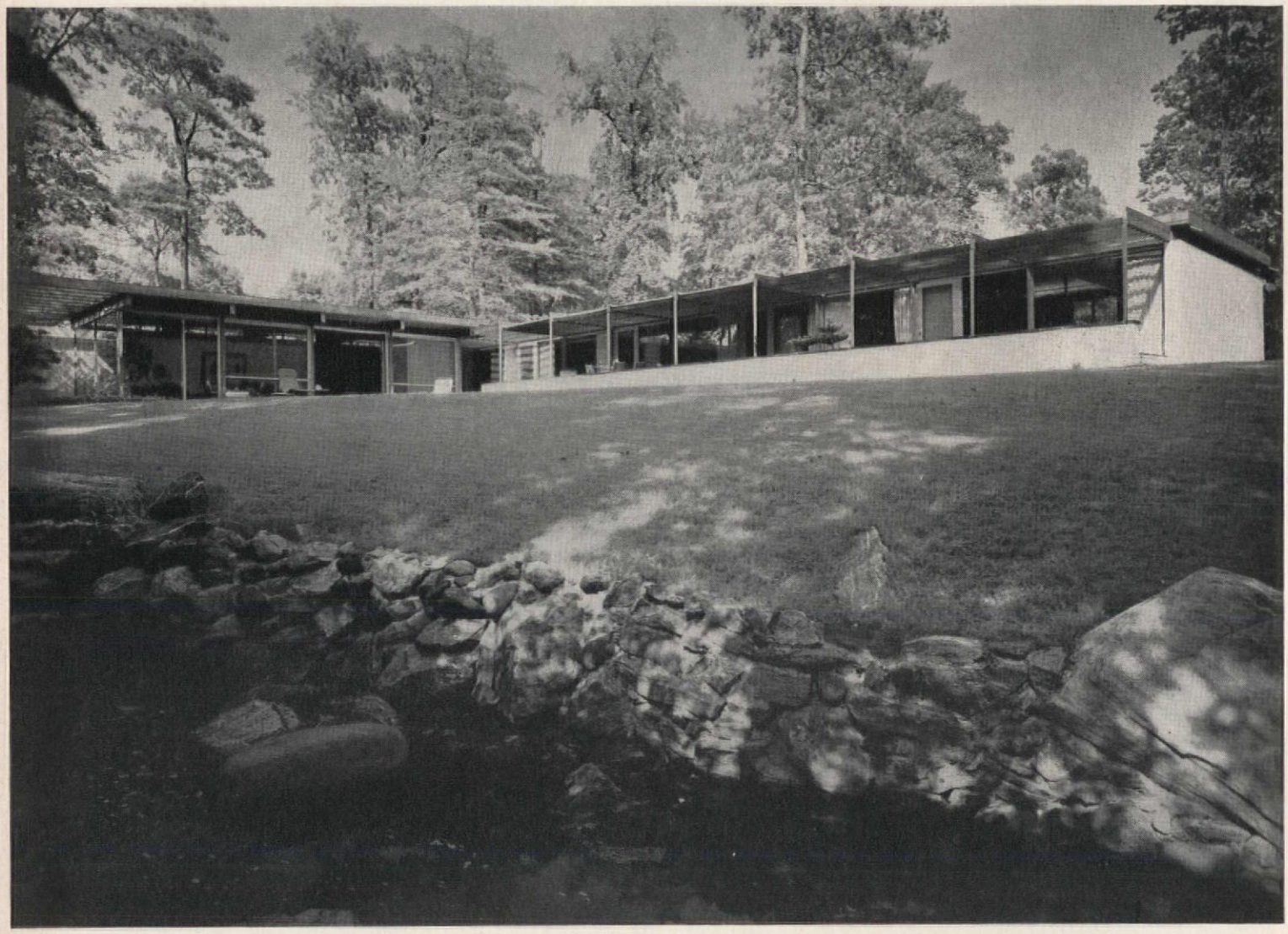
Library and living room look out toward pond. A frozen pond makes a cold winter scene, but the Latin-American owners say that in their new house they enjoy cold winters for the first time in the years they have lived in the north

Ben Schnall

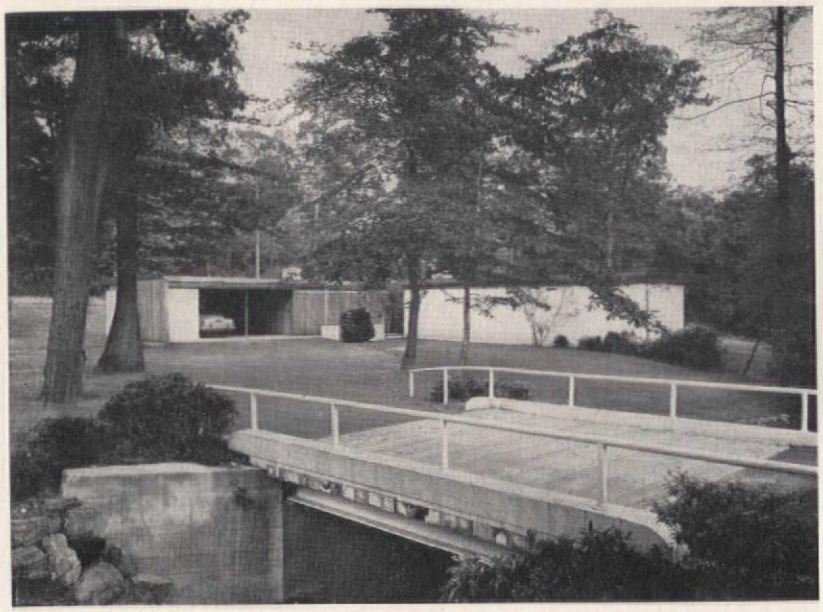
CONTEMPORARY HOUSE IN COLONIAL SETTING

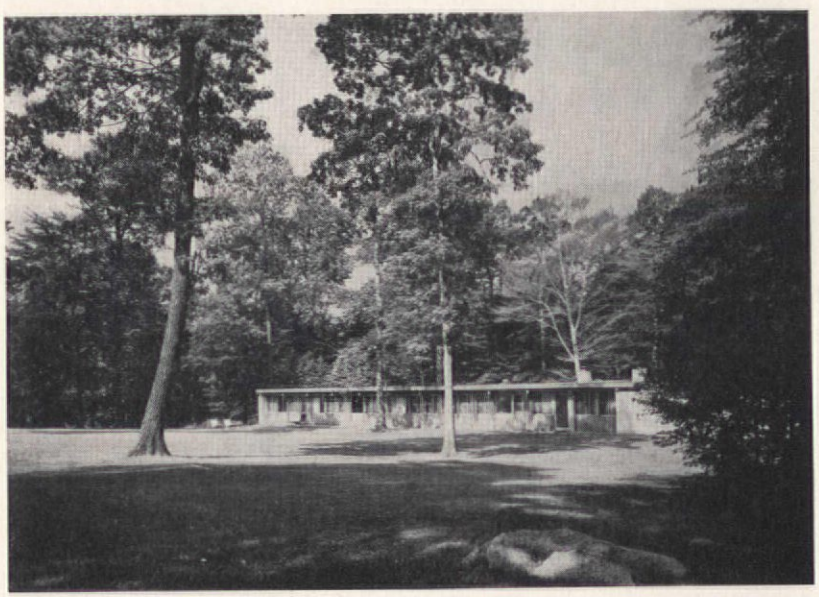
Residence for Mrs. Edward Pearson, Mamaroneck, N. Y.

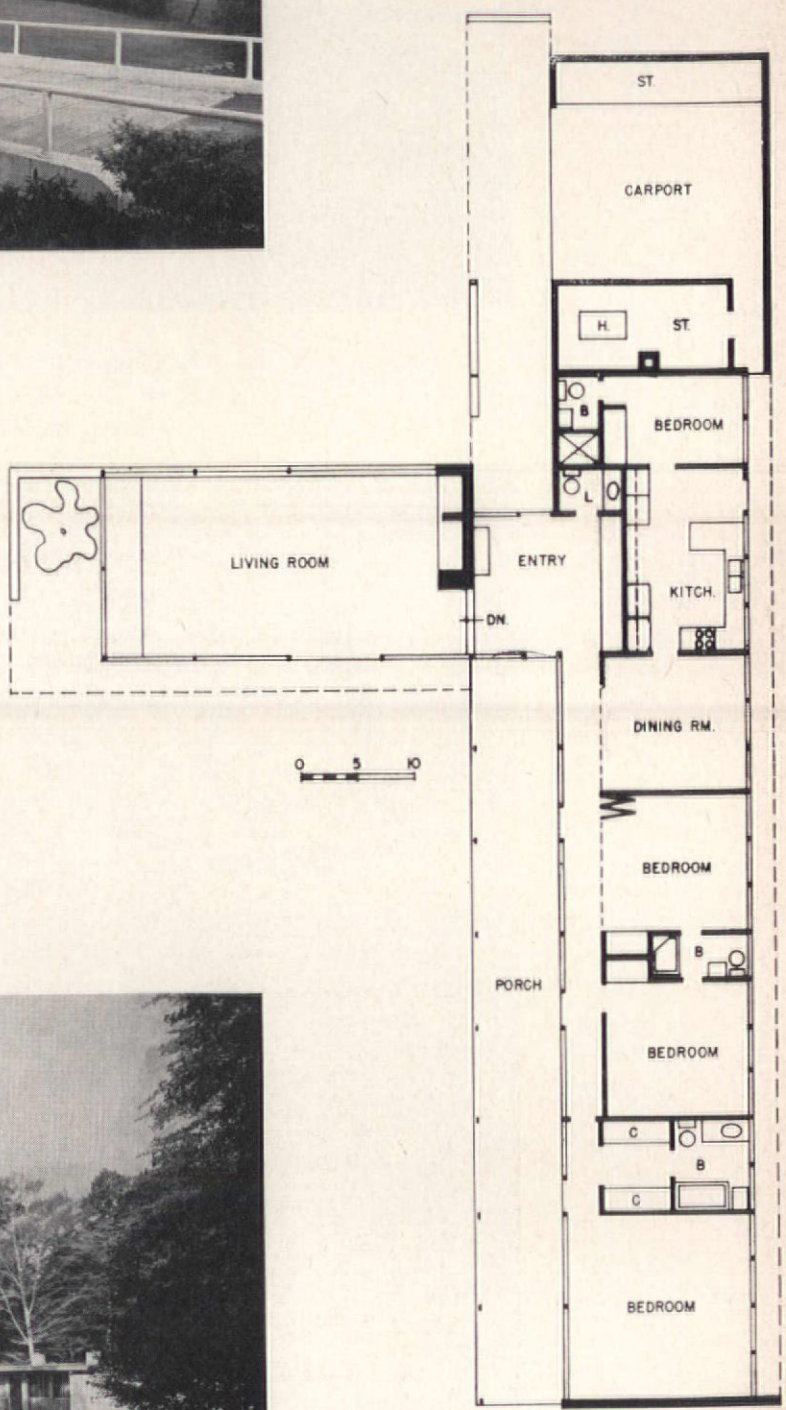
Richard Gordon, Architect



The house pictured above does not look Colonial, and it certainly makes no pretenses in that direction. However, from the other side (opposite page, top) all one sees from the road is a carport and a blank white brick wall, this in deference to a generally Colonial neighborhood. The other side (above) is virtually all glass, facing a river that runs through the property. Here the house develops its own delights. The architect explains that the owners asked him to act as contractor in order to use some fairly inexperienced carpenters who were available. Thus the house is designed for especially simple construction. It is laid out on a 4-ft 3-in. module, with 6 by 12-in. long leaf yellow pine beams. The beams rest in steel straps welded to light structural steel T columns imbedded in the poured concrete foundation. Beams are 8 ft 6 in. on center, so that 4 by 8-ft mahogany ceiling panels would go in place without cutting.



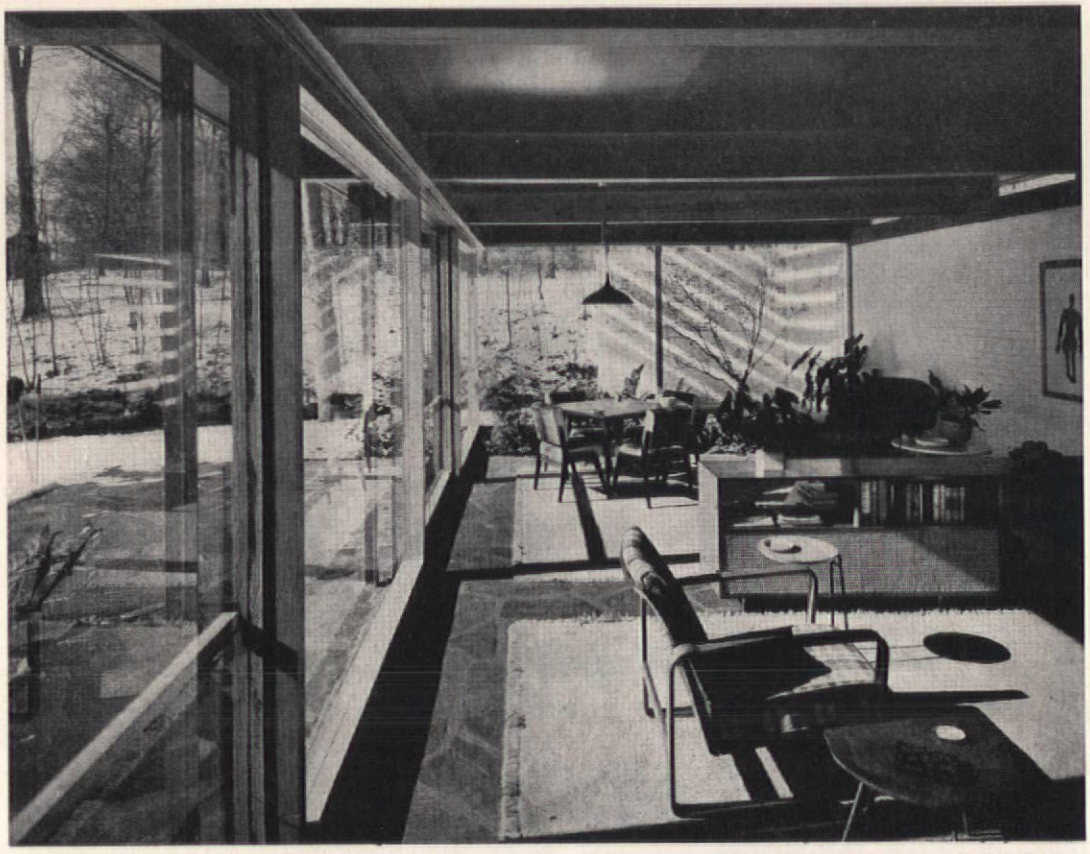


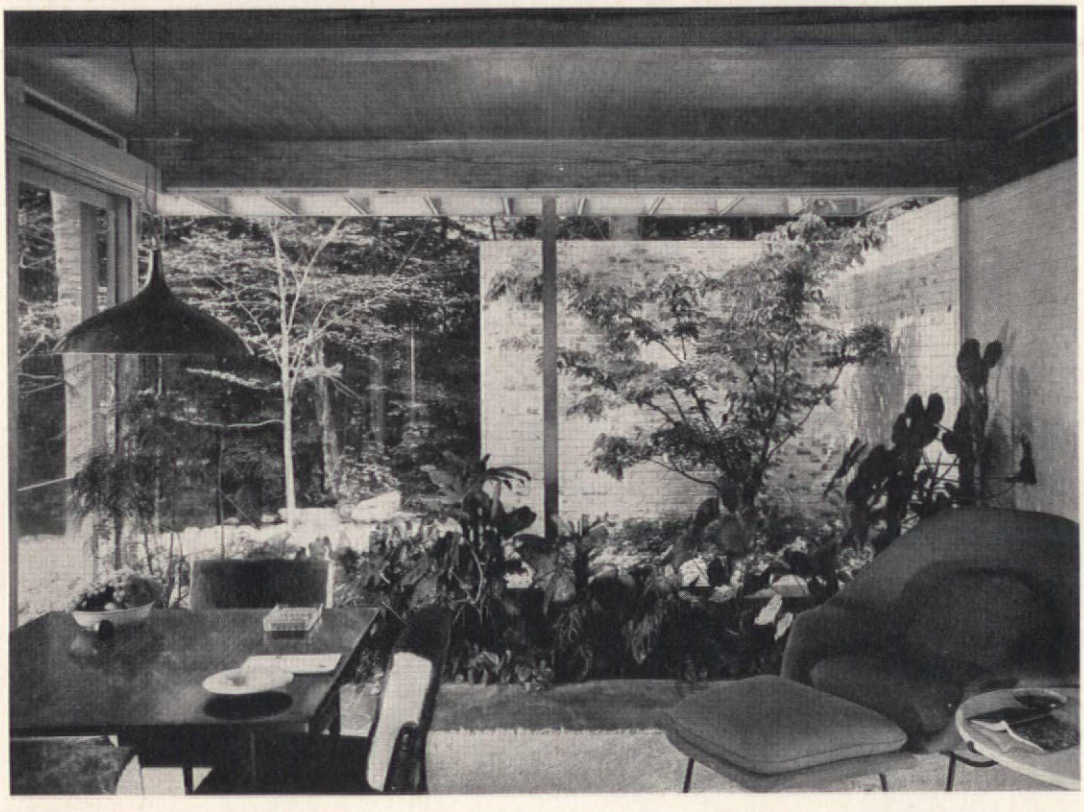

ST.
CARPORT
H.
ST.
B
BEDROOM
L
LIVING ROOM
ENTRY
KITCH.
DN.
DINING RM.
0 5 10
BEDROOM
B
PORCH
BEDROOM
C
B
C
BEDROOM

© Ezra Stoller

L-shaped form of house screens terrace at living room and lawn sloping down to the river that runs through the property. Long porch on bedroom wing with trellis-type roof is useful for outdoor dining or for any other purposes that porches are for

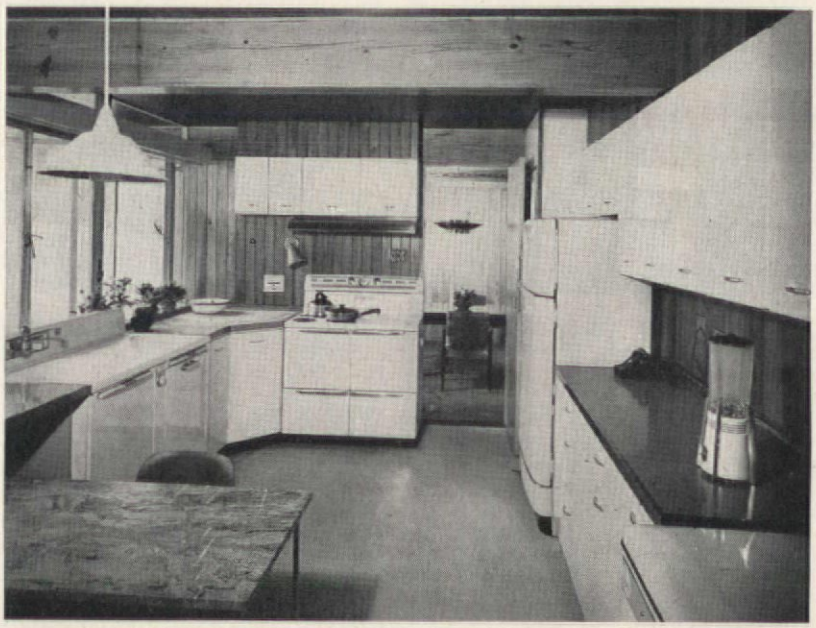
Living room is completely open on river side, completely closed on road side, with only shallow light windows between the roof beams

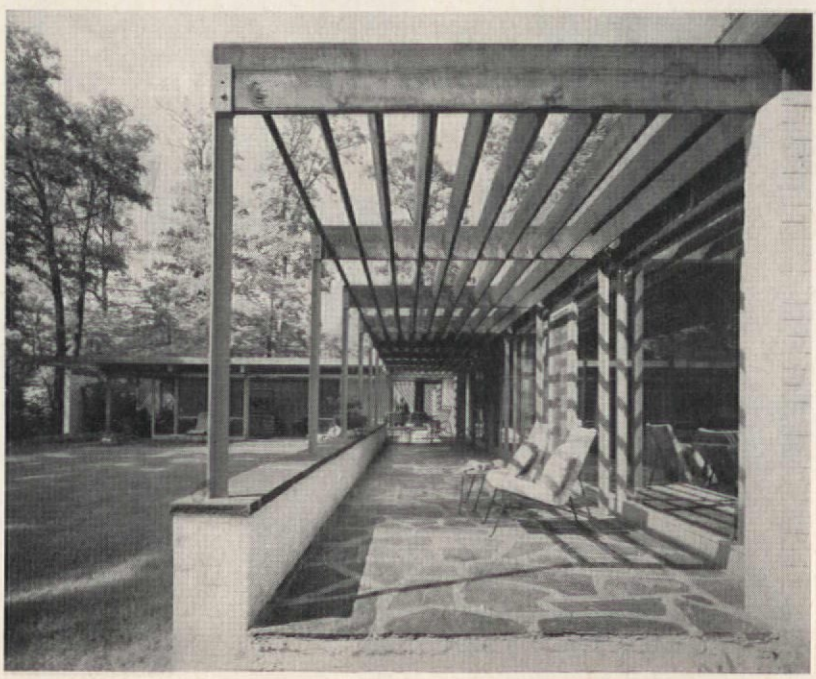




Planting bed at far end of living room merges the indoors with the outdoors. Living room wall extends beyond and makes turn to screen room fully from road

Dining room is positively removed from living room, is in fact part of bedroom wing; kitchen is behind entrance foyer without a door, thus disposing of any idea of eating in living room





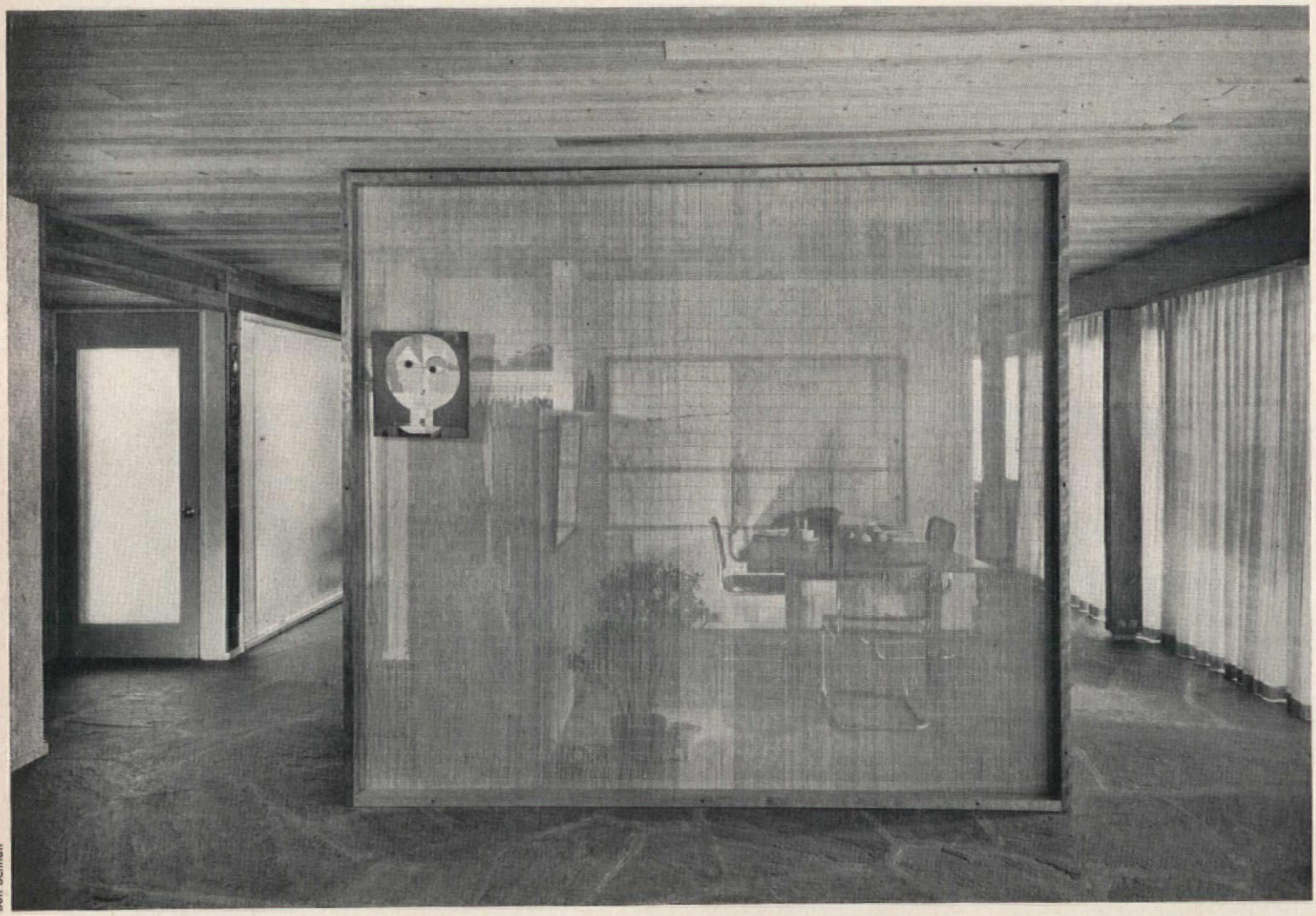
© Ezra Stoller

SPACE DEFINITION WITHIN THE HOUSE

ARCHITECTURAL INTERIORS

Design | *Details* | *Materials* | *Equipment*

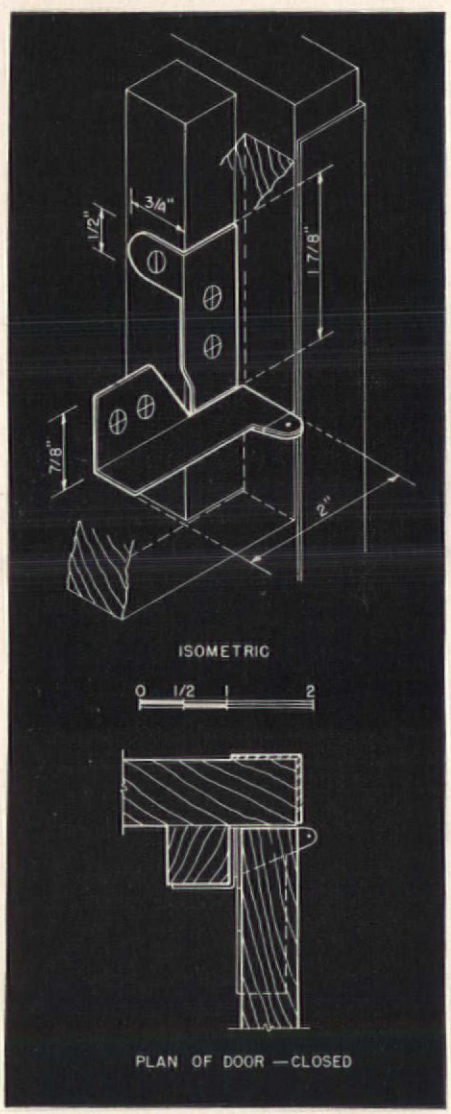
THE CONTEMPORARY PROBLEM of handling living space is paradoxical. At one extreme the open plan confronts the architect with a large volume which, if not thoughtfully subdivided, assumes a barn-like character devoid of domestic scale and lacking in a sense of privacy and shelter. Contrariwise, a heavy-handed spatial division can result in a series of areas depressingly cramped and discontinuous. The solution frequently lies between these extremes, achieving a flowing succession of articulated spaces each defined yet part of the whole; each in scale and character with its function. The technology is usually very simple; the successful concept often subtle. On the next six pages are presented several adroitly managed examples, not a complete selection, but each successful for its specific purpose.



Ben Schnall

Due to its semi-transparent quality, the split bamboo screen by Architect Marcel Breuer, above, incorporates a strong element of intrigue as well as separation for the dining area. Result is a feeling of greater spaciousness with privacy

This teakwood unit by Ward Bennett actually serves as furniture for a one room apartment. Drop-down desk on near side; foam rubber sofa on far side



Storage cabinet unit by Alvin Lustig (detail above) also serves to conceal undesirable elements at right. The black metal channel houses fluorescent light tubes

The New York Times Studio

The New York Times Studio

By employing a freestanding walnut cabinet for dining separation, top, Philip Johnson has avoided the box-like character an entrance foyer so often assumes.

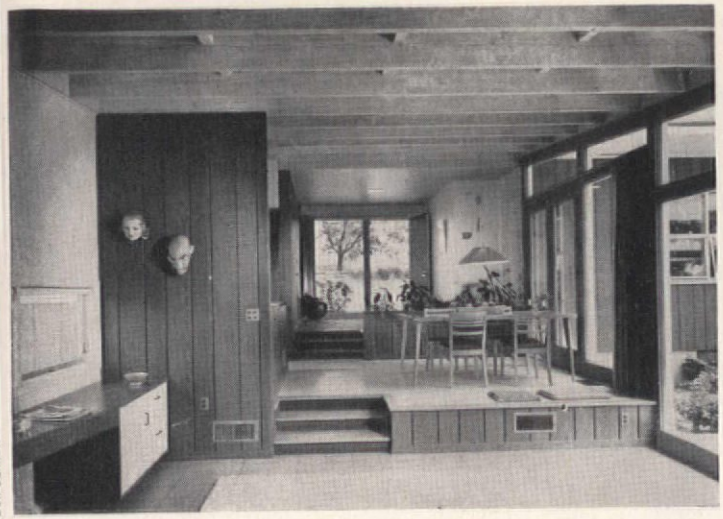
The center picture shows one of a series of wall-storage units devised for builders houses by Designs for Business. As shown, it is placed between breakfast room and living area. The pass-through shelf is of plastic; door pulls and hinges are black metal. Other units in the series contain storage space or bar or television set.

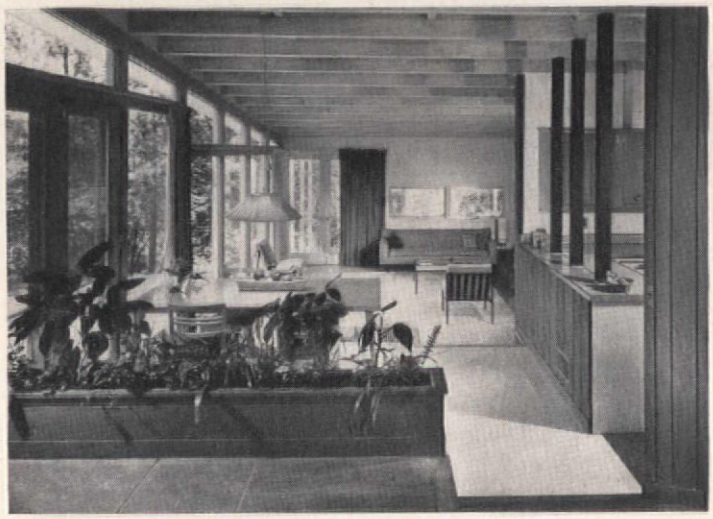
Ben Schnall

The bottom picture shows deft handling of interior space by Architect Carl Koch which employs a change in level, a fireplace, built-in furniture with opening above and pass-through. The general effect is one of both spaciousness and defined use

© Ezra Stoller

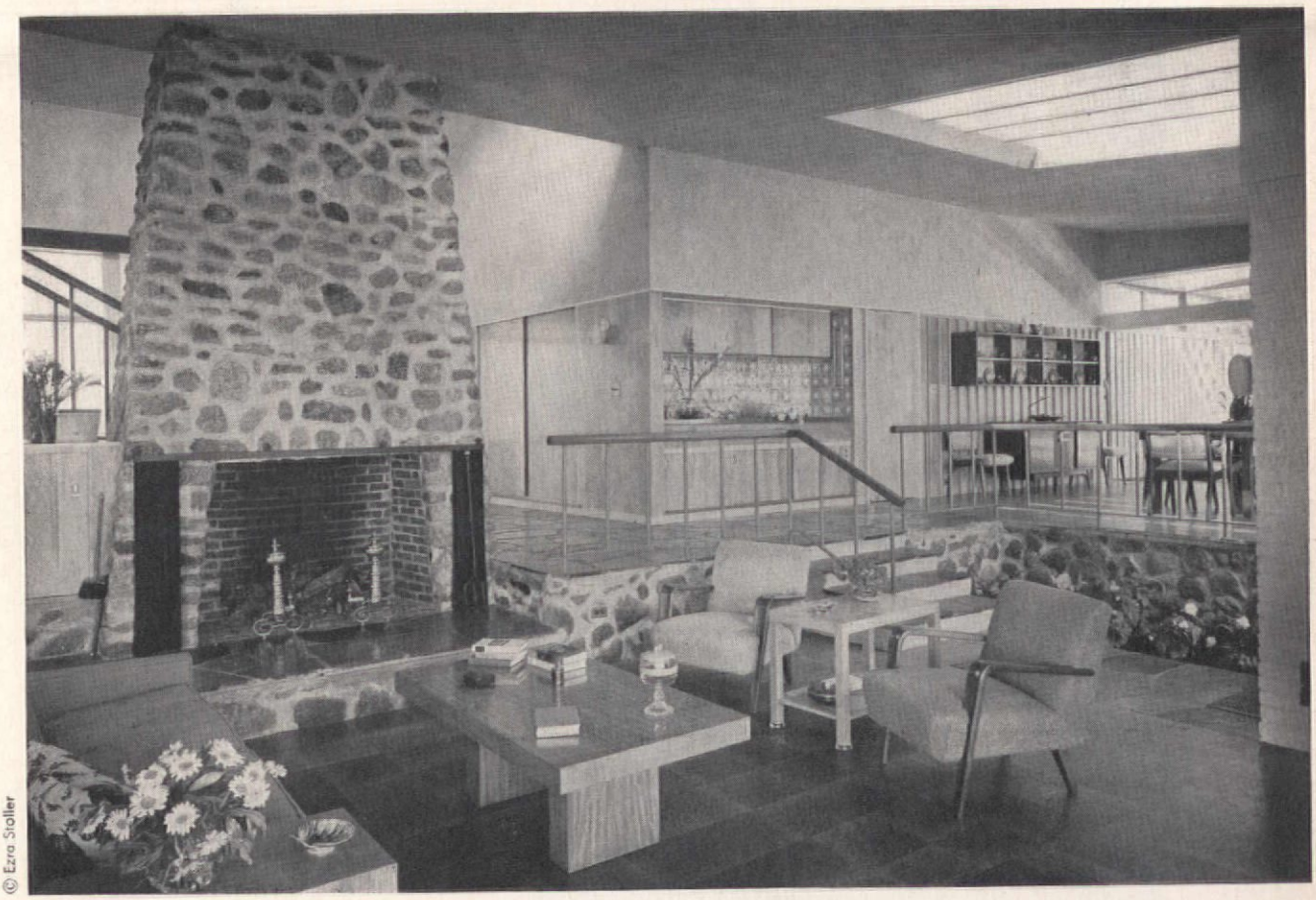
The two photos below look from different directions at the dining space in Architect George Cooper Rudolph's own house. The space is marked by changes in level, by planting, and by the open screen at right





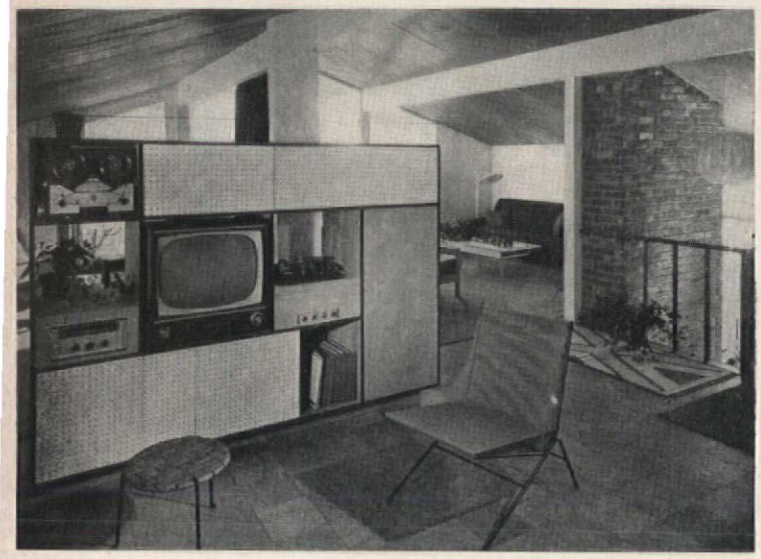
Ben Schnell

A subtle change in character between open informality and a more sheltered kind of formality results from Carl Koch's interior arrangement below. The fireplace, low stone wall, railing, change in flooring, and skylight all contribute to the effect



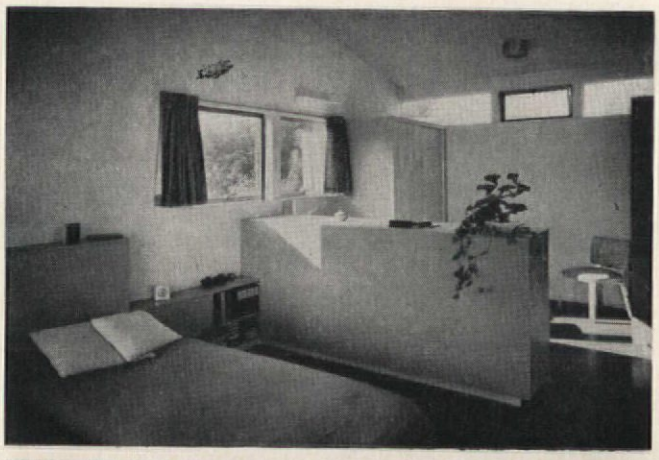
© Ezra Stoller

Ben Schnall



Cortland V. D. Hubbard

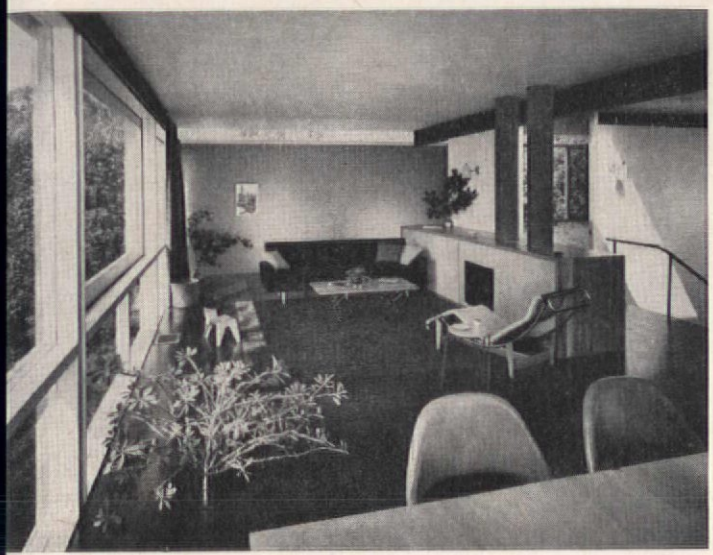
In the two examples above, furniture has gained in stability; the living area has gained in neatness and order through organization. Interior at left by Carl Koch; at right by Oskar Stonorov



© Ezra Stoller

The simple device of a painted chest of drawers in a bedroom by Carl Koch provides an effective and pleasing separation of areas for sleeping, dressing

The two fireplaces below offer an interesting contrast in concept. The one at left by John Johansen has brightly painted asbestos flues and a feeling of lightness as opposed to the more massive, almost traditional yet contemporary character of that at right by Nemeny & Geller



Robert Damora

© Ezra Stoller

In the house by Walter Bogner pictured below the tall, free-standing storage wall provides an unusual screen for the stair

Lionel Freedman

CITIES NOT FOR DYING: REDEVELOPMENT BOOM

URBAN RENEWAL is the heart of the new housing program President Eisenhower has put before the Congress: and the President and his Housing Administrator, Albert M. Cole, have said repeatedly that the first test for Federal aid to any community that needs it will be the evidence of that community's determination to help itself. Evidence of such determination has been turning up lately in so many big redevelopment schemes that it amounts to a nationwide trend. Two of the latest — and biggest — would transform vast areas of Chicago and Washington, D. C. St. Louis has a proposal for a huge central parkway in the downtown district, underground parking for 49,332 cars, a Federal office building, merchandise mart, bus terminal and helicopter taxicab landing port. Another elaborate scheme, announced late last year, would turn a 28-acre railroad yard in Boston's exclusive Back Bay section into a Boston version of the Rockefeller Center concept. In New York, the latest of seven slum clearance projects has been planned to include a long-sought exhibition hall and an office building as well as housing. Philadelphia, Baltimore, Detroit, San Francisco, Indianapolis and Norfolk are among other cities which have projects well beyond the planning stage. The Federal government, which has authorized funds totaling $1 billion for land clearance loans and $500 million in cash grants for city slum aid under Title I (slum clearance and urban redevelopment) of the soon-to-be-defunct Housing Act of 1949, estimates 81 cities are in the final planning stage of urban redevelopment projects and 28 actually have projects under way. The dawn of the Hydrogen Age finds American cities at last coming to grips with the urban problems that arose in the wake of the Industrial Revolution.

Chicago Aerial Survey Co.

CHICAGO: $400 MILLION PROJECT FOR 151-ACRE SITE

Fort Dearborn Project Would Rejuvenate Area Just North of Loop

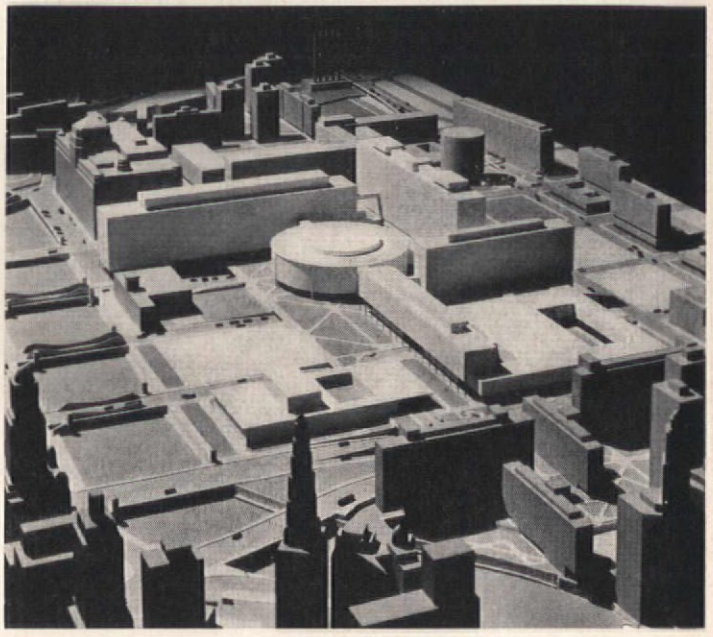
A MONUMENTAL SCHEME for redevelopment of a 151-acre "blighted" area in the heart of Chicago has been proposed to city officials by a group of civic and business leaders headed by Real Estate Developer Arthur Rubloff, who conceived the project, and Nathaniel A. Owings, of the architectural firm of Skidmore, Owings and Merrill, who worked with him on design and development.

The "Fort Dearborn Project" would include a 62-acre government administration center, a 33-acre downtown campus for the University of Illinois, 5000 apartments in high-rise elevator buildings and covered parking for 6000 cars.

The site, on the north bank of the Chicago River, bounded by Rush Street on the east, the river and historical Wolf Point on the west, and Ontario Street on the north, was selected, say the sponsors, "after exhaustive studies proved conclusively that there was no other direction in which the Loop could be expanded and anchored at the same time."

Financing of the project, to cost an estimated $400 million, would be arranged through private investors, except for site acquisition and clearance, which it is believed will qualify for Federal assistance under Title I of the Housing Act of 1949 and state and city assistance under the Illinois Housing and Redevelopment Legislation of 1947. The Chicago Land Clearance Commission, which would be expected to handle this phase, has already authorized an investigation of the project to determine its eligibility for such aid.

The local excitement generated by mere announcement of the proposal appeared to provide a contemporary endorsement of the well-known axiom of Chicago's first master planner, Daniel A. Burnham — whom no Chicago newspaper failed to quote — "Make no little plans: they have no magic to stir men's blood."

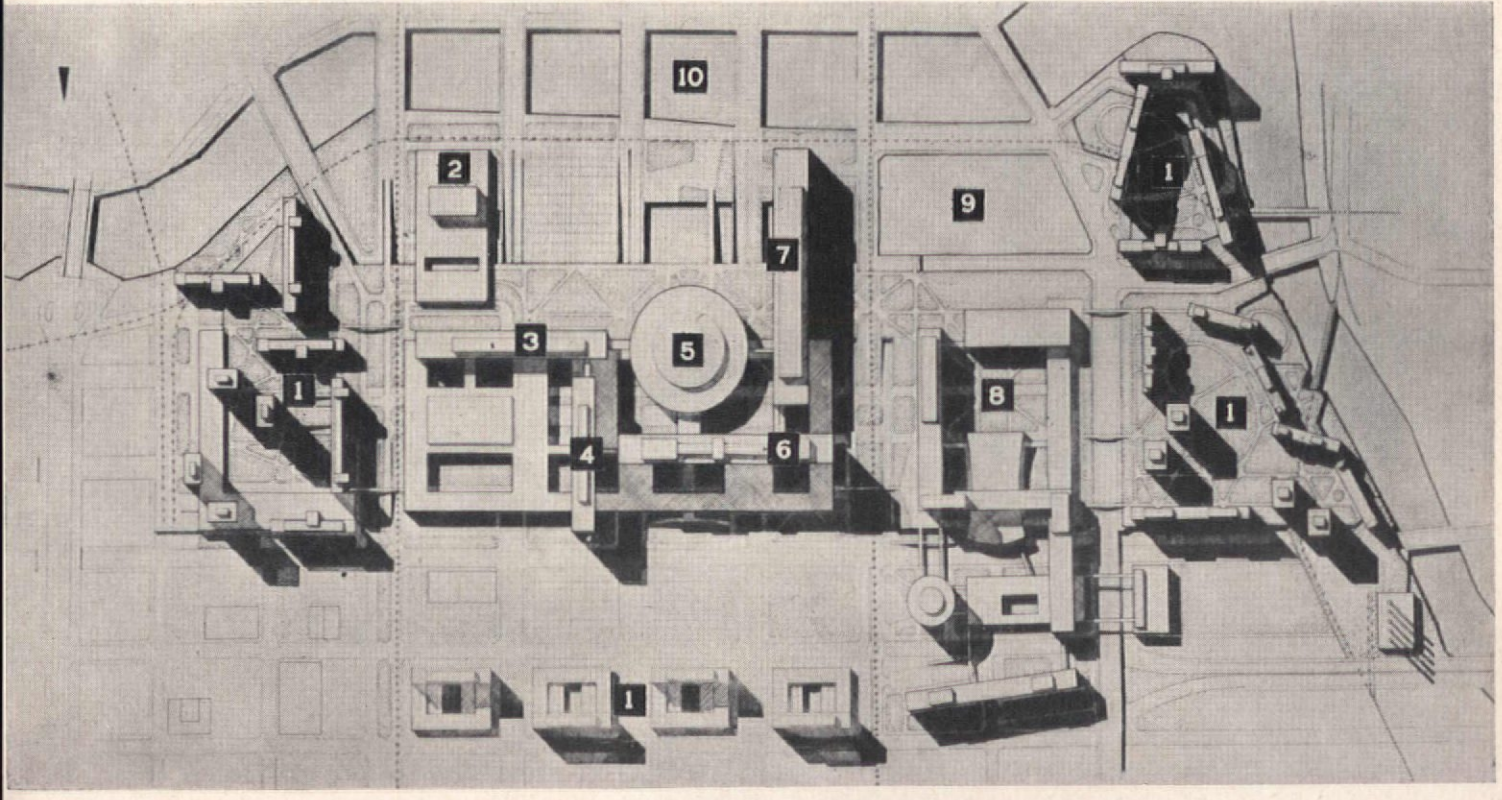


Hedrich-Blessing

Above: photograph of Fort Dearborn Project model, looking northwest across Chicago River. Left: project drawn in place on proposed site in aerial photograph of Chicago. Below: development site plan

LEGEND

1. Apartment Buildings
2. Library
3. State Building
4. County Building
5. Consolidated Courts Building
6. City Building
7. Federal Building
8. University Center
9. Merchandise Mart
10. Chicago River



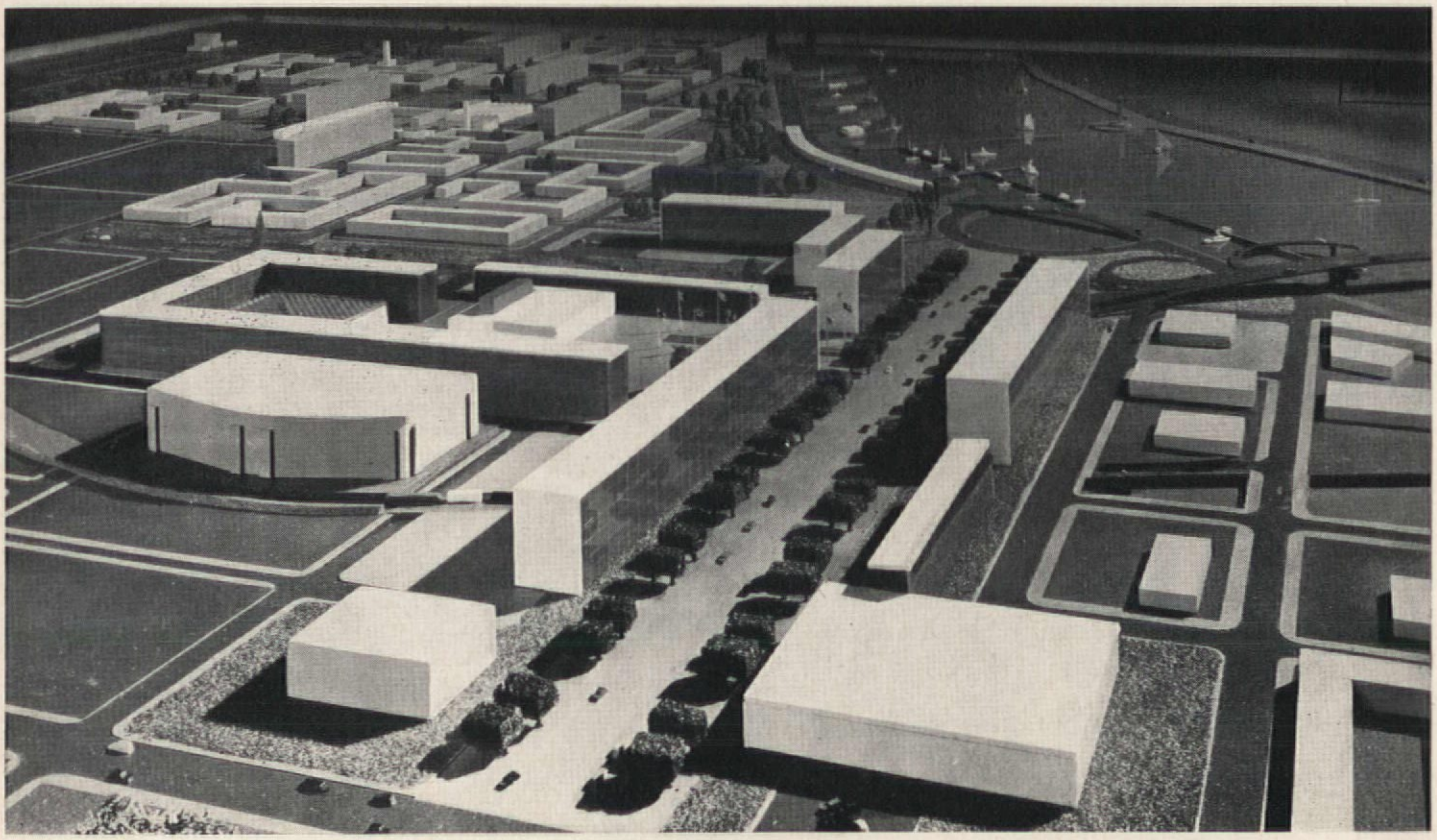
WASHINGTON: $500 MILLION PROJECT FOR 427-ACRE SITE

Zeckendorf Sees Southwest Area as Social and Cultural Heart of Nation

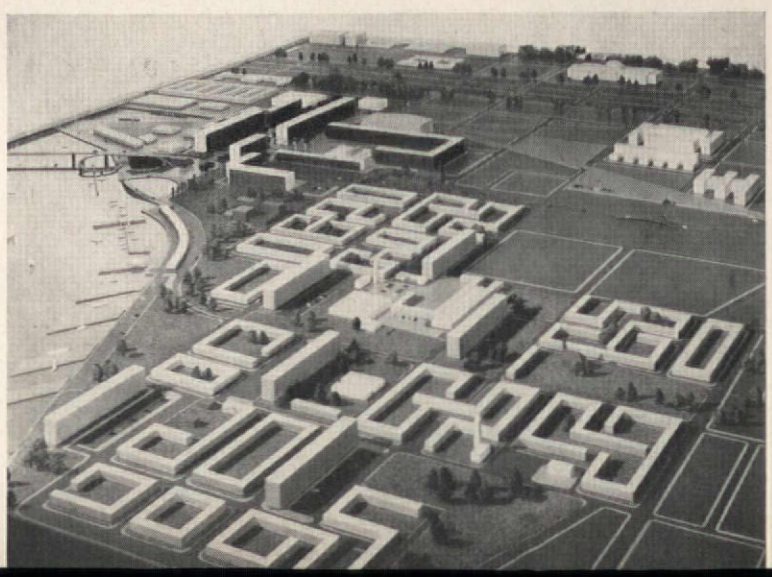
THE FABULOUS WILLIAM ZECKENDORF has turned his attention to the nation's capital and from one of the worst slum areas in that slum-ridden city proposes to create a cultural, shopping and residential center which would make Washington a center of amusements and the arts, the social and cultural as well as the political heart of the nation.

A "memorandum of understanding" signed in March by Mr. Zeckendorf's real estate firm, Webb & Knapp Inc., of New York, and the Redevelopment Land Agency of Washington, commits both parties to 12-month studies based on a Webb & Knapp proposal for a $500 million project that would include a residential area of "Georgetown-type" row houses and garden apartments to house 21,000 persons, a monumental South Mall to "reintegrate" the Southwest area and the greater city, a 20-acre "L'Enfant Plaza" for a national opera house, symphony, theaters and convention hall, and even an outdoor ice-skating rink.

The Webb & Knapp concept includes 330 acres of the 427-acre "Southwest Survey Site" as designated by the RLA — the area bounded on the north by the elevated tracks of the Pennsylvania Railroad, on the south by Fort McNair, on the west by the Washington Channel and on the east by South Capitol Street — plus 18 acres north of the railroad which will provide the north end of the new



Lionel Freedman



South Mall over the railroad tracks. Not included are 76 acres already committed to "Project B," a $30 million project which was the first to be undertaken by RLA, and 22 acres in the southeast portion of the site developed with housing of recent date in good condition.

Except for the Mall and the public buildings on L'Enfant Plaza, the entire redevelopment would be privately financed under arrangements to be made by Webb & Knapp.

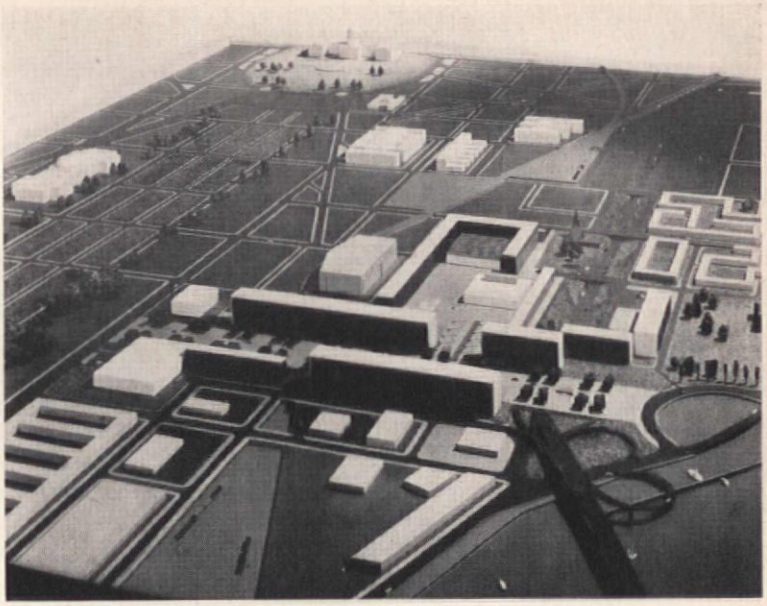
LEGEND

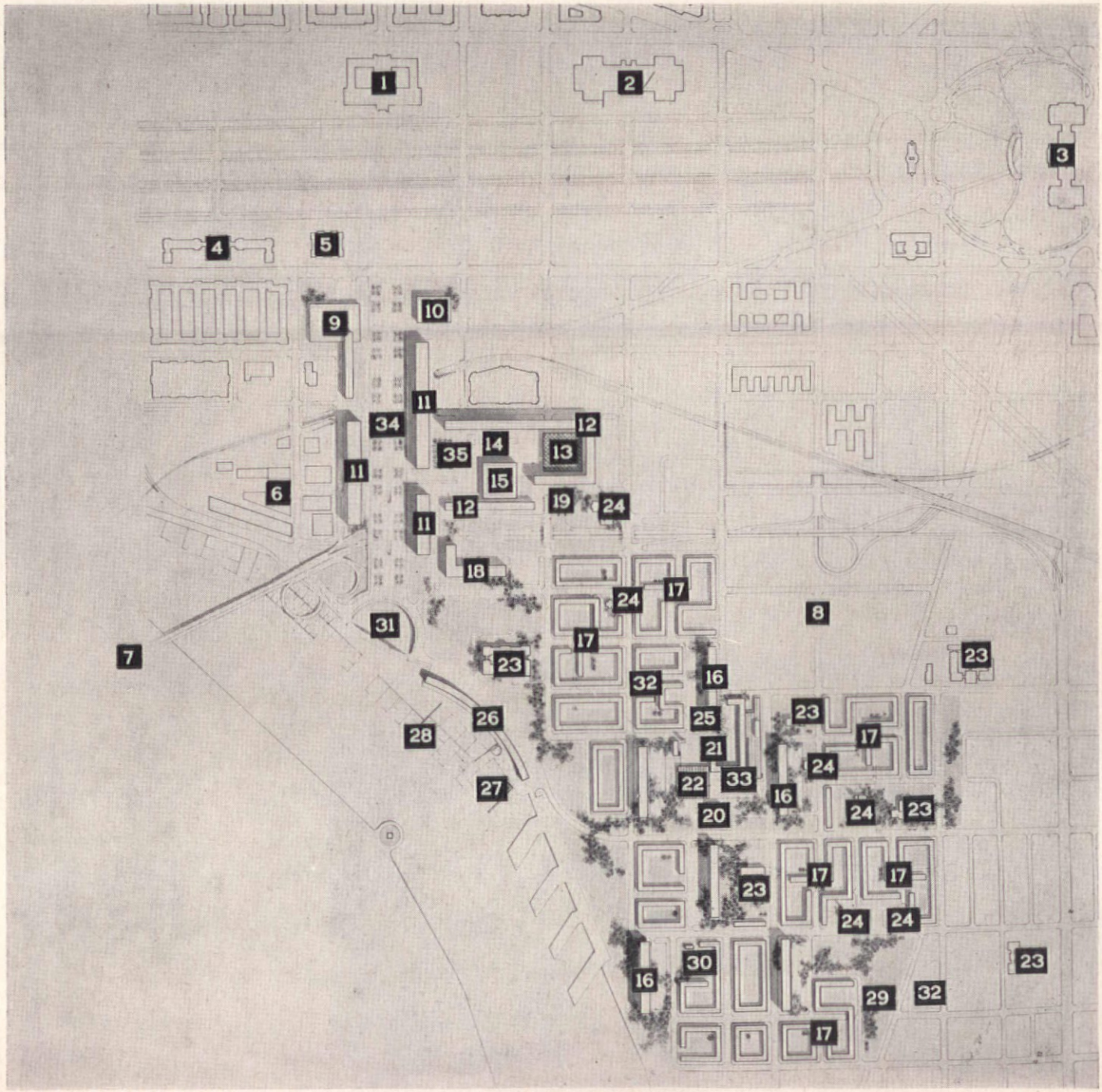
Existing Buildings

1. National Museum
2. National Gallery of Art
3. Capitol
4. Department of Agriculture
5. Freer Gallery

Proposed Project

6. Produce Center
7. Proposed Expressway
8. Project Area "B"
9. Museum
10. Institutional
11. Quasi-Public Offices
12. Office Buildings
13. Exposition Hall
14. Outdoor Restaurants
15. Opera House
16. Apartment Buildings
17. Residential Squares
18. Hotel
19. To Underground Parking
20. Library
21. Apartments Above Stores
22. Shopping Areas
23. Schools
24. Churches
25. Community Building
26. Waterfront Shopping Areas
27. Concessions
28. Wharves
29. Hoover Playground
30. Historical Buildings
31. Pool
32. Street Squares
33. Town Center
34. South Mall
35. L'Enfant Plaza





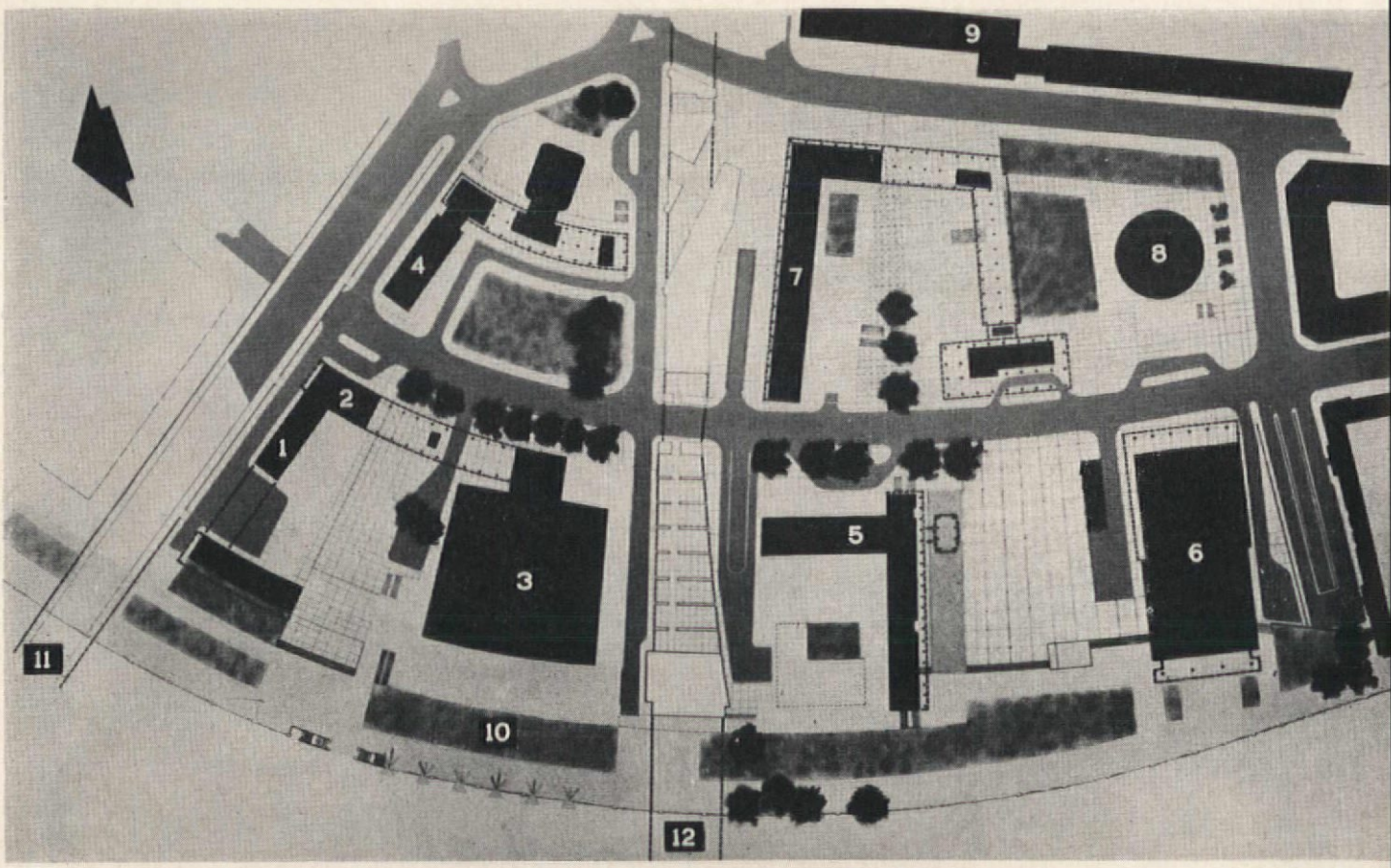
LONDON — SOUTH BANK: ESTHETICS IS RESPECTABLE

Development Joins Commerce and Culture for Public Enjoyment

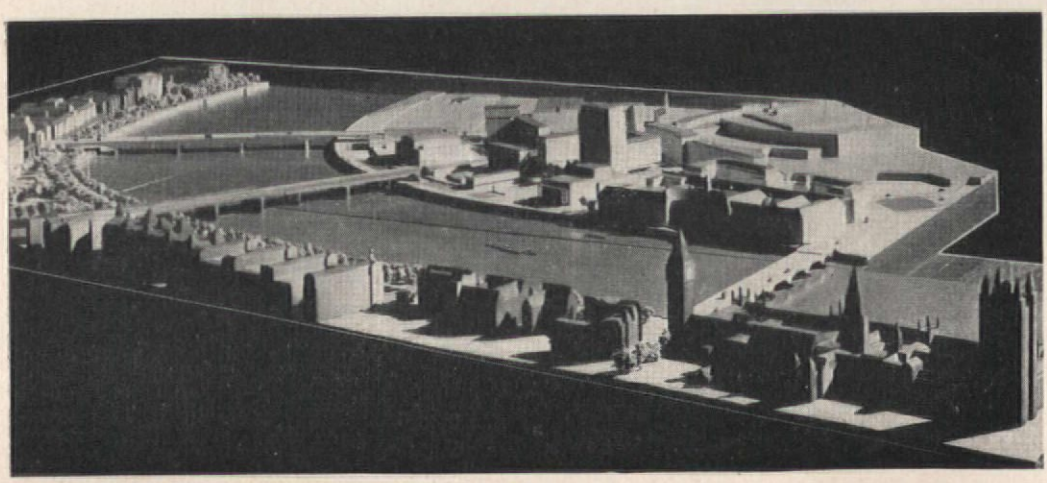
THE PROPOSALS of the London County Council for permanent development of the "South Bank" of the Thames — blighted first by slums and then by war, later site of the 1951 Festival of Britain, since a public park — illustrate the boldness with which a public agency in England may speak of matters that prudent public officials in this country most often feel must be swept under the carpet. "The basic conception of the scheme," the Council notes, "is the grouping of a number of large public and office buildings in such a way as to give a feeling of spaciousness and vitality at a focal point on the south bank of the river, and to present to the roving eye of the Londoner a continuously interesting series of visual compositions, both in height and in depth. The buildings on the riverside in particular have been chosen for their liveliness in the evening so as to avoid the 'dead' character so often associated with central office areas."

The present proposals are for an area bounded by Waterloo Bridge, York Road, Chicheley Street and the river and zoned for public buildings as the predominant use. Included in the development are a National Theater, a hotel, an office block to be built by the Shell Petroleum Company Ltd. as its main international headquarters — a 25-story tower with three 11-story wings, a central air terminal for London to be built by British European Airways, another office block to include ground level shops and underground parking, an international conference center and exhibition gallery, the existing Royal Festival Hall and underground quarters for the London Transport Executive.

The scheme has the general approval of the Royal Art Commission; the speed with which it is developed "depends mainly on the extent to which the Government will permit capital expenditures of this nature."

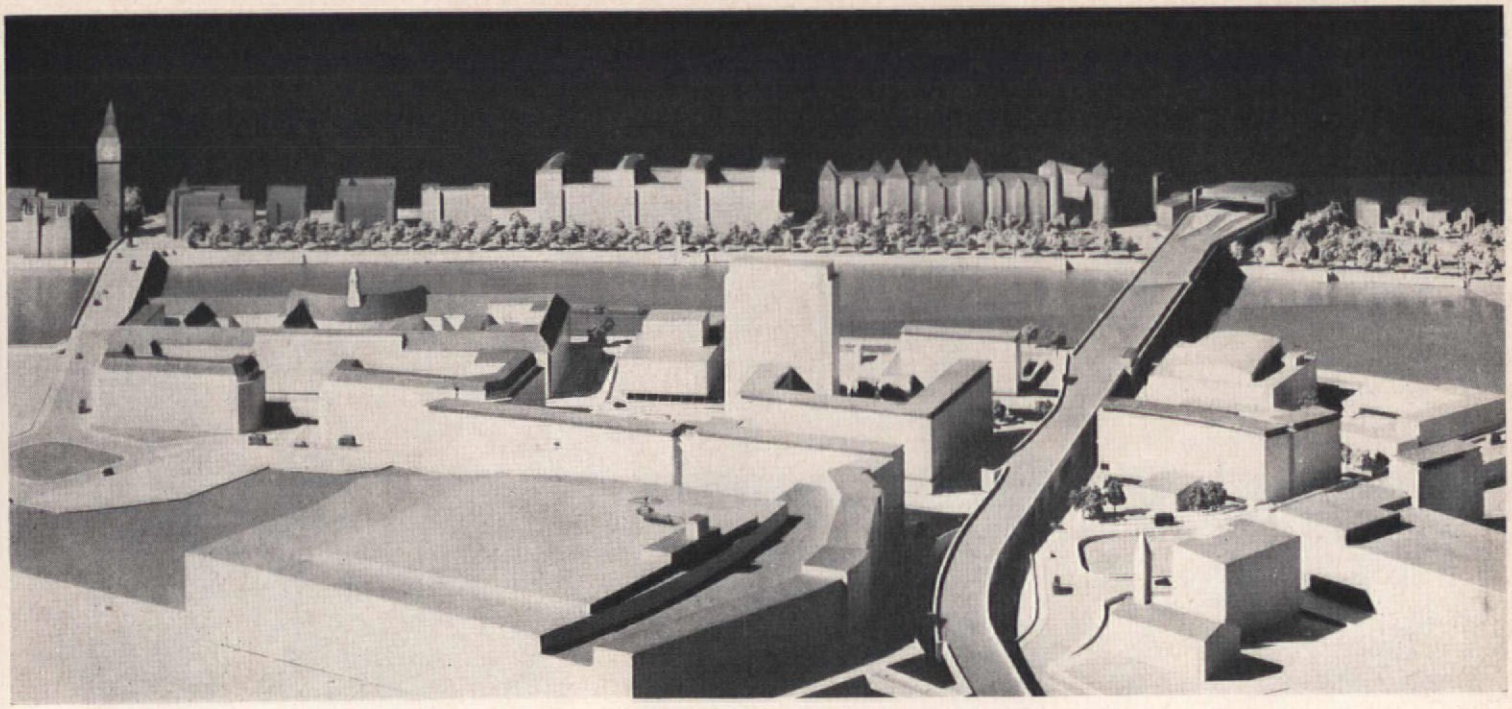


The Architects' Journal

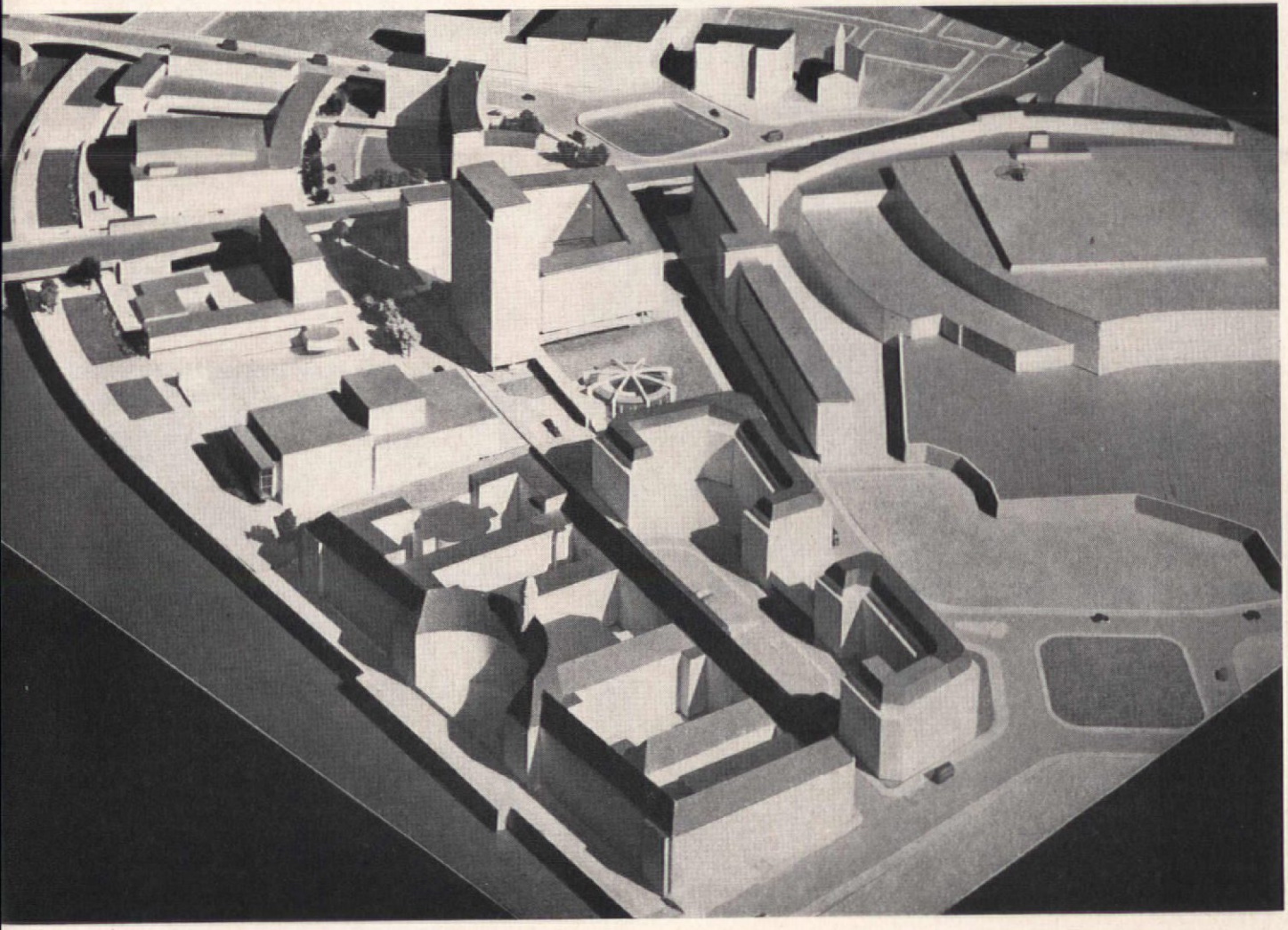


LEGEND

1. Conference Center
2. Exhibition Gallery
3. Royal Festival Hall
4. Offices
5. Hotel
6. National Theater
7. Offices
8. Airways Terminal
9. Offices
10. Riverside Walk
11. Waterloo Bridge
12. Hungerford Bridge



The overall scheme for the South Bank Permanent Development (model photos above, below and across-page) was prepared by a Reconstruction Group team in the Town Planning Division of the London County Council under the direction of the Architect to the Council, J. L. Martin; the Senior Planning Officer, Arthur Ling; and the Assistant Planning Officer, P. Johnson-Marshall

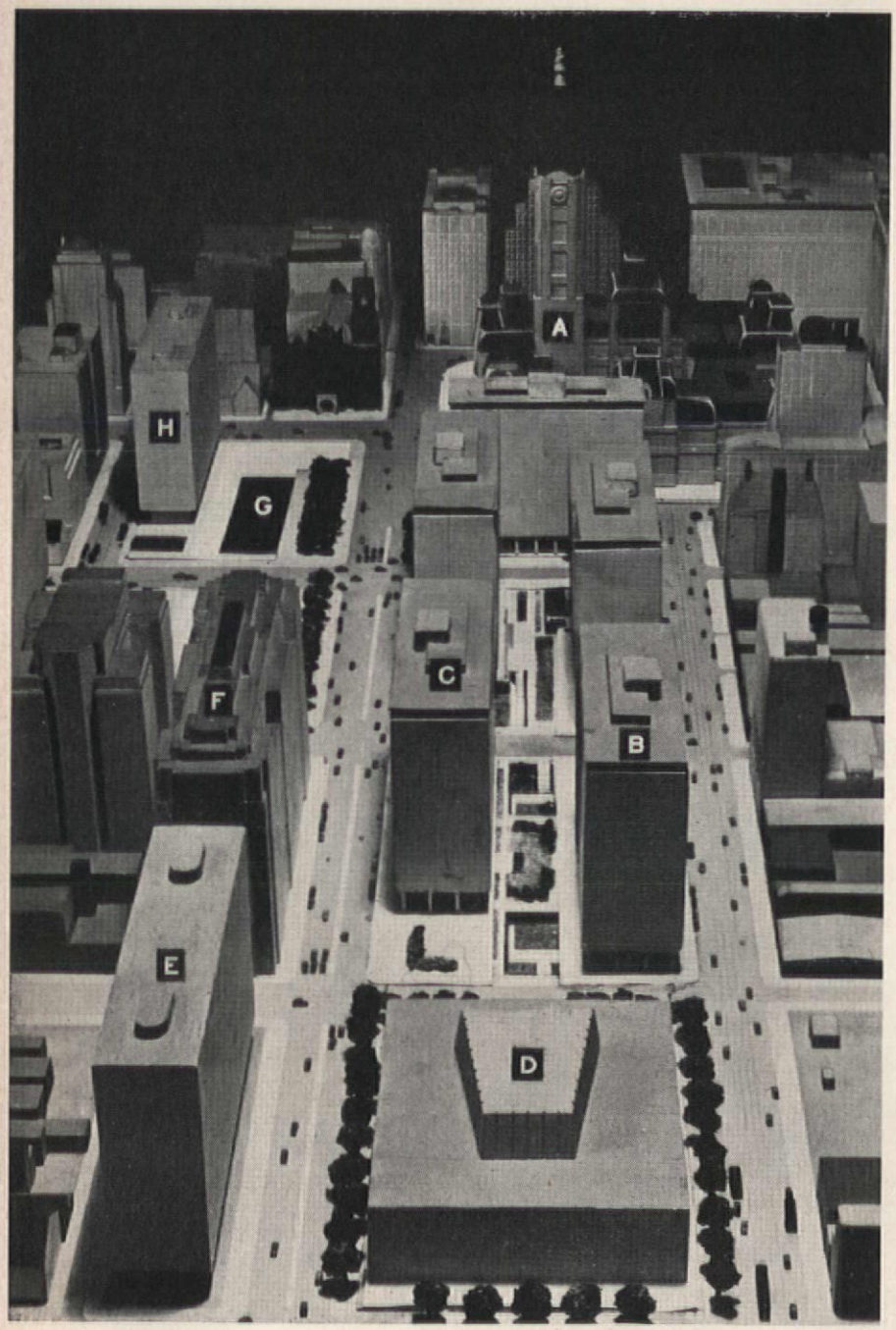


Dr. H. Zinram, © London County Council

PHILADELPHIA'S PENN CENTER GETS UNDER WAY

$100 Million Project in Rockefeller Center Tradition

PHILADELPHIA'S long-cherished dream of a "Penn Center" to rival New York's Rockefeller Center began to take shape last summer when a 20-story office building designed by Emery Roth and Sons for Uris Brothers, New York builders, got started on one block of the eight-acre site left vacant by demolition of the "Chinese Wall" — the old Broad Street station and tracks of the Pennsylvania Railroad. An architectural advisory committee consisting of George Howe, Philadelphia architect and former chairman of Yale's Department of Architecture, New York Developer Robert Dowling and Executive Director Edmund Bacon of the Philadelphia City Planning Commission assists the Pennsylvania Railroad in supervising overall architectural development and planning in accordance with the Dowling scheme for Penn Center, which grew out of the original plan by the City Planning Commission.



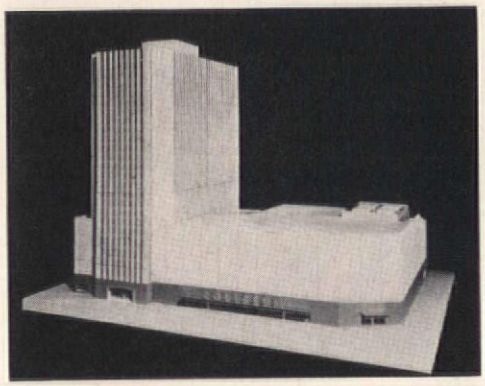
Closeup of model shows 1000-ft esplanade 80 ft wide that will be heart of project and (a) City Hall; (b) office building now under construction for Uris Brothers; (c) future Uris Brothers office building; (d) Walter H. Annenberg site once planned as transportation terminal, now being restudied for possible office use; (e) hotel; (f) Pennsylvania's suburban station; (g) city's future Rayburn Plaza and (h) offices

Above: "Chinese Wall" — view from City Hall dome just before demolition began. Below: model view of eight-acre Penn Center site 1. Between Pennsylvania Boulevard and Market Street, Broad and 18th streets. 2. Pennsylvania Railroad property across Pennsylvania Boulevard is being developed as complementary area. 3. City Hall

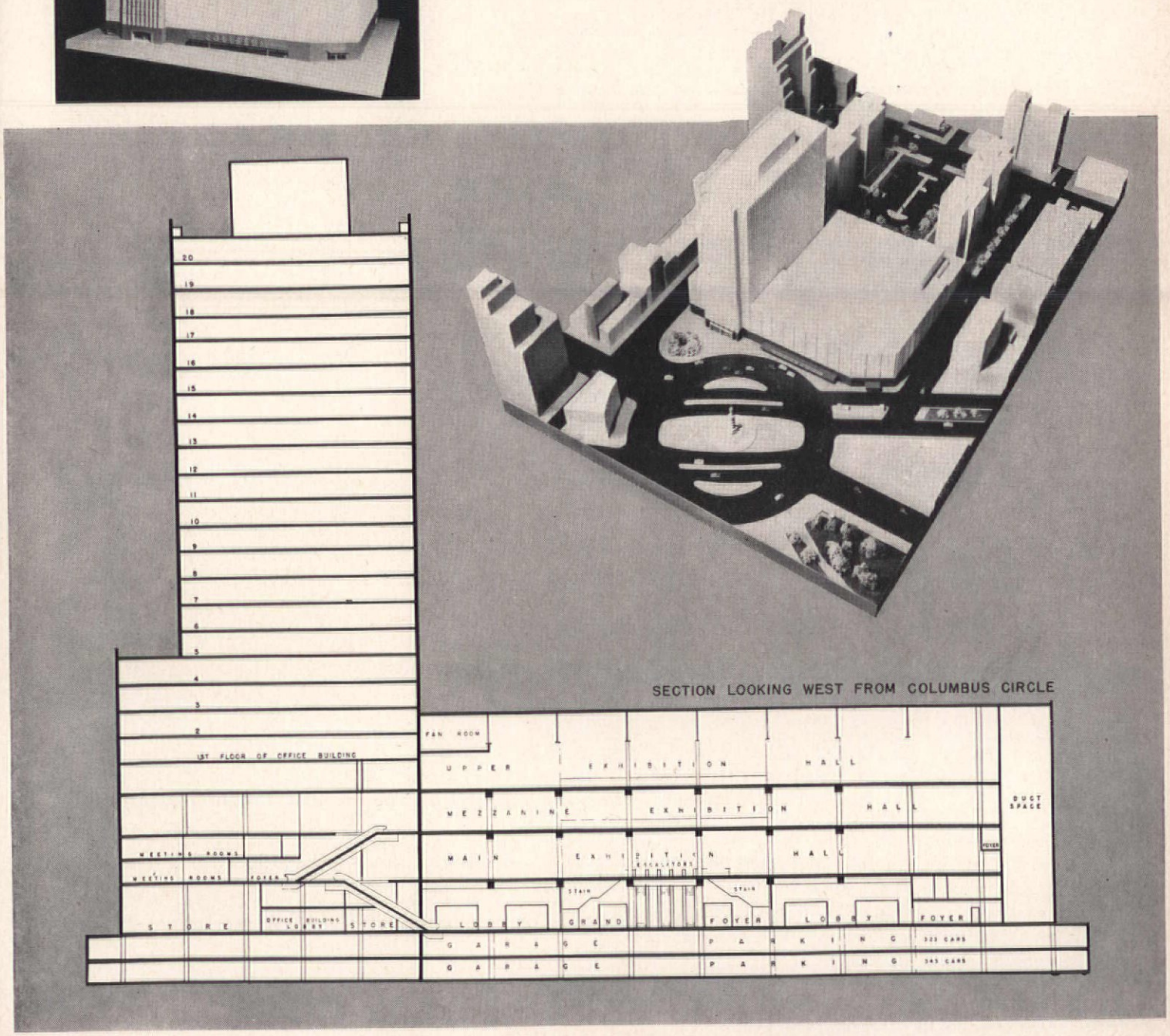
NEW YORK: COLISEUM PLANS IN "FINAL" VERSION

Project Now Includes Offices as Well as Housing and Parking

NEW YORK'S Triborough Bridge and Tunnel Authority, as personified by Chairman Robert Moses, has announced "final" plans for its oft-modified Coliseum project at Columbus Circle. As now presented, the Coliseum will be a vast four-level exhibition-convention hall with a 20-story office building and public parking garage adjoining and two 14-story apartment buildings opposite. Earlier plans for elaborate convention facilities fell by the wayside as "uneconomic." Triborough will underwrite the $30 million Coliseum-office structure; private developers are erecting the apartment buildings. Cost of the 6.3-acre site was $9.5 million — $2,182,000 from the city, $6 million from the Federal government in a slum clearance grant and $1,110,000 from Punia and Marx, the private builders of the apartment houses, for their 147,874 sq ft. Architects for the Coliseum are Leon and Lionel Levy.



The 6.3-acre site is bounded by Columbus Circle, West 60th Street, Columbus Avenue (Ninth Avenue) and West 58th Street. Views here are looking westward from Columbus Circle, with 58th Street at left and 60th at right. Left: Coliseum is the low building, tower the "integrated" office structure. Inset: model view of overall site; apartments at center rear



Main Street, Small Town, U.S.A., is pretty well filled with small local shops

SUBURBAN BRANCH DEPARTMENT

Main Street, Big Town, was once the only possible big-store location

Wide World

ARCHITECTURAL RECORD'S BUILDING TYPES STUDY NUMBER 210

®

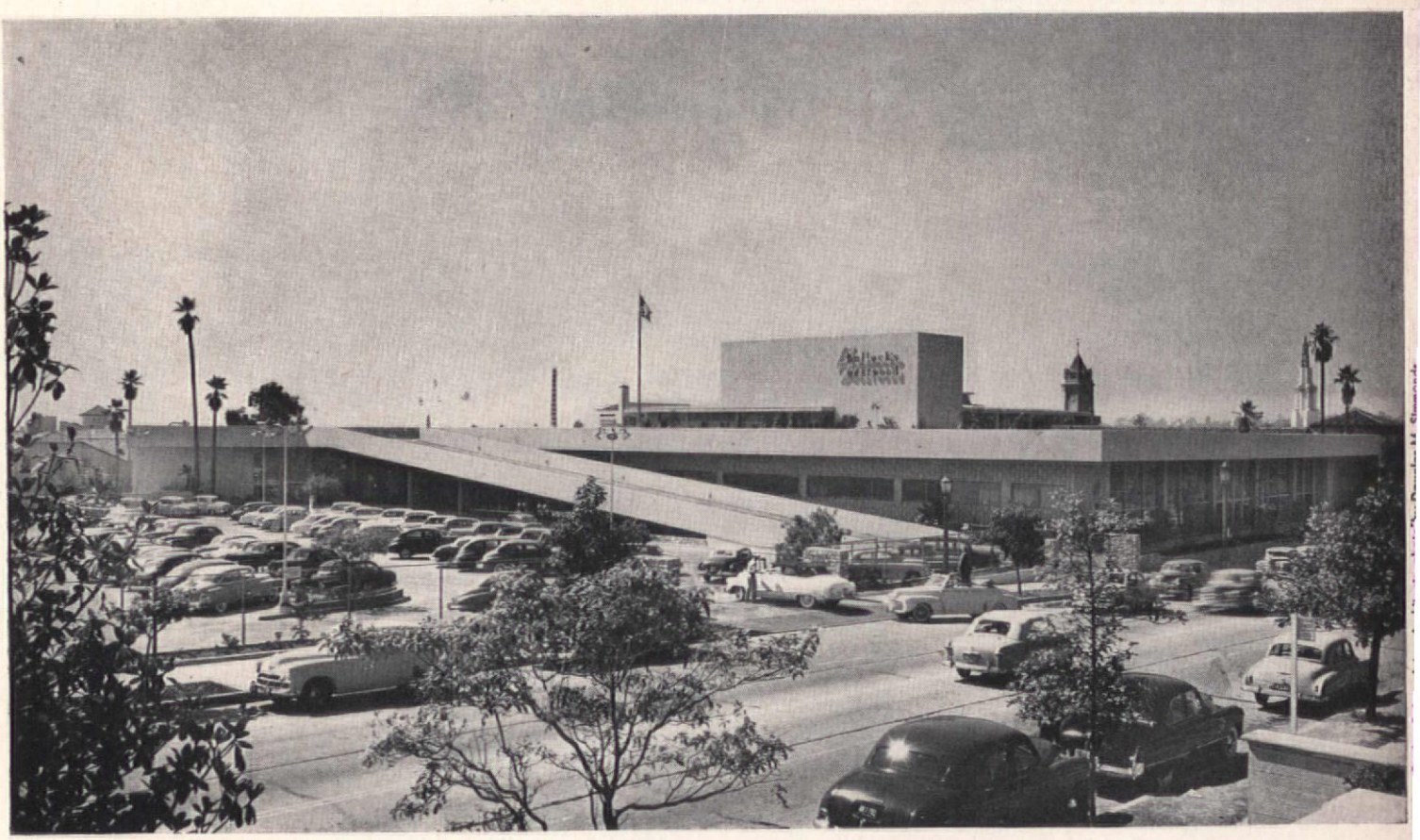
The suburbs are acquiring new retailing facilities, urban in character, semi-rural in location, with few of the disadvantages of either. An appraisal prepared in collaboration with Daniel Schwartzman, A.I.A.

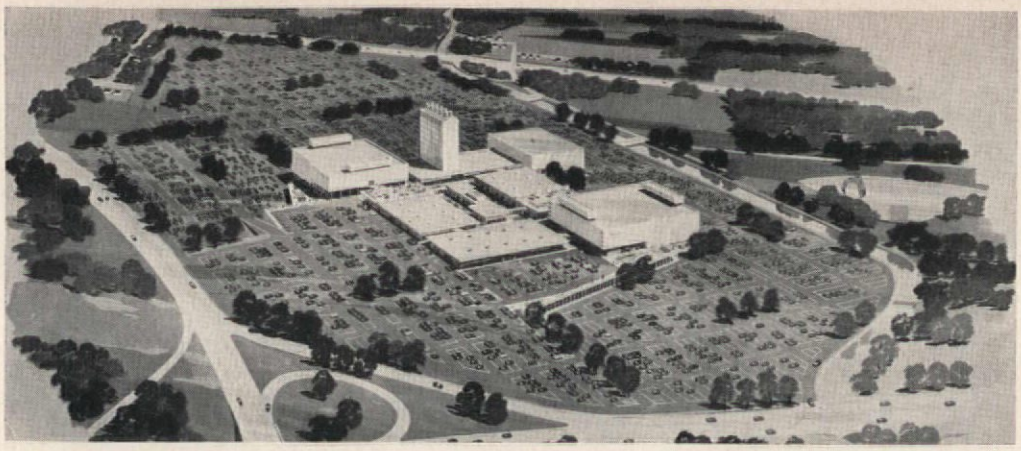
STORES

SINCE WORLD WAR II the suburban branch department store has become established as an important retail facility. There are several reasons for its growth. The 1950 census showed that suburban population was then increasing five times as fast as urban, a rate that has since accelerated. Greater use of motor vehicles has made suburban stores easier to reach and shop in — and more profitable; at the same time it has helped to compound urban congestion and make downtown shopping less simple.

The U. S. Department of Commerce reports that store construction of all types is most active where population is growing fastest, in the suburbs. Considering also that in the period 1946–1952 this country's total store construction (in dollar volume) was 10 percent of private house construction whereas in the 1920's it was 14 percent, store building should remain active. In this activity the suburban department store is new. The store with a wide variety of merchandise for all members of the family and for the home, within a short driving distance of a suburban neighborhood, was until recently a luxury. Now, however, responsible planners and developers consider it an essential community facility; and — given reasonable sales goals, intelligently designed buildings and sites of reasonable size — it has established a pattern of success. Even when it has been part of a regional shopping center which may as a whole be something less than successful, the branch department store itself has done well. It would appear to be financially more sound than either the small individual shop or the very large shopping center. It has attracted the attention of most of the conservative operators of large department stores, and there are still many hundred downtown department stores in cities with growing residential

Typical suburban branch department store: Bullock's Westwood, Westwood Village, Calif.





Out-of-town site near super-highways: Bamberger's in Paramus, N. J.; Abbott, Merkt & Co., Engineers

SUBURBAN

BRANCH

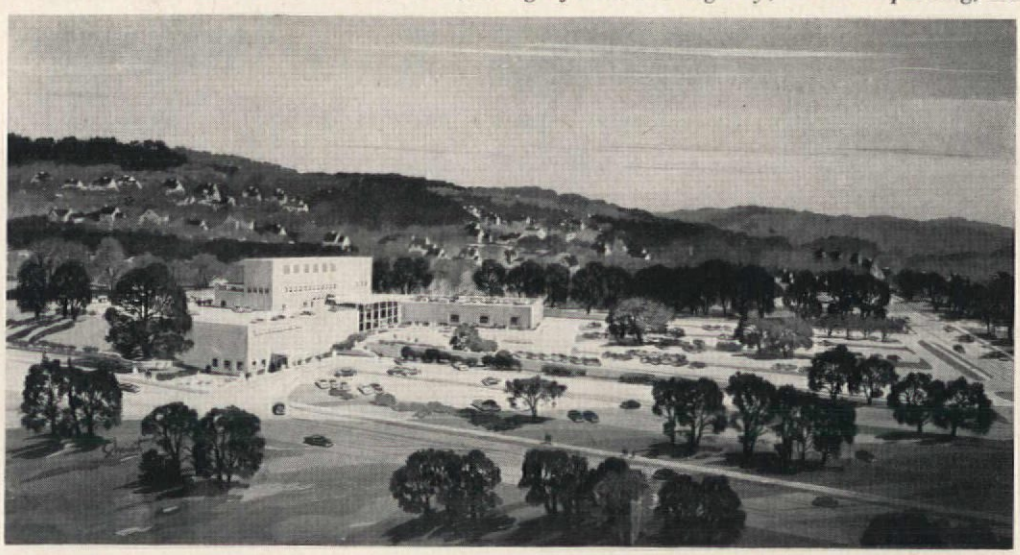
DEPARTMENT

STORES

suburbs which could profitably build branches in the suburbs, where operating costs are low and net returns high.

This study is not a detailed critique, but an appraisal of trends in design and of certain points on which operators and designers agree. Many of the examples, existing and proposed, in the following pages have a striking similarity. This reflects their common purpose and conservative ownership. On the other hand there are some vigorous design innovations, based, as they must be in this field, on hard economic facts.

Saks White Plains, N. Y., on edge of town near highway, has 3-level parking; Kahn & Jacobs, Architects

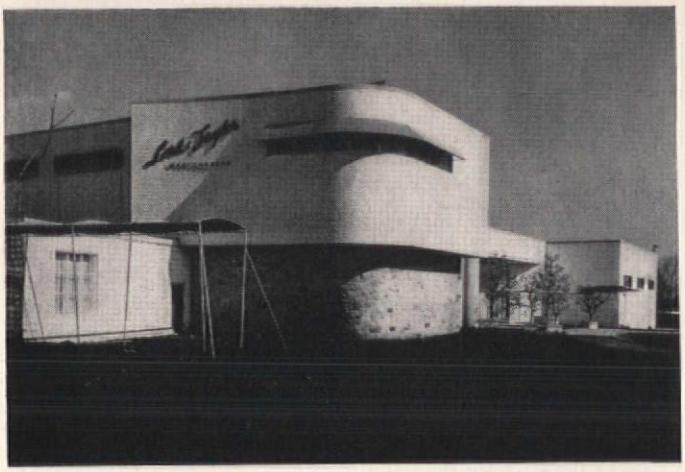


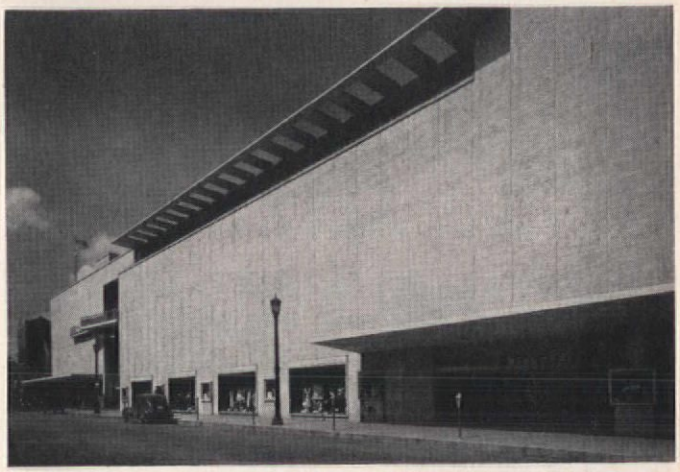
Hecht Co., Northwood Shopping Center, Baltimore, Md.; Abbott, Merkt & Co., Engineers; Daniel Schwartzman, Architect

Julius Shulman

Julius Shulman

Robinson's, Beverly Hills; Pereira & Luckman, C. O. Matcham, Archts.; Bullock's Pasadena; Welton Becket & Associates, Archts.

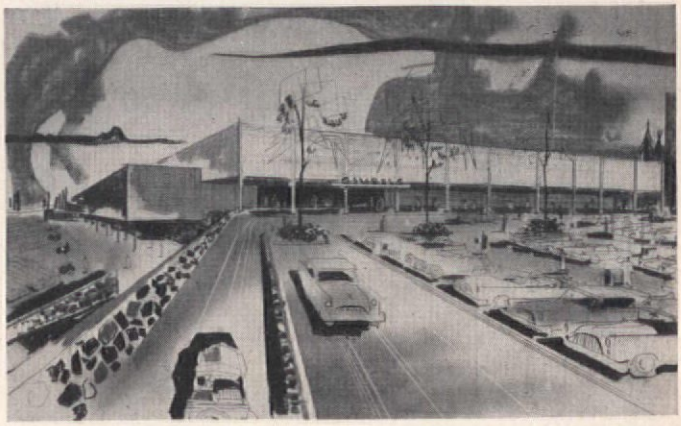




Hedrich-Blessing

Lord & Taylor, Westchester, N. Y.; Starrett & Van Vleck, Archts.; Wieboldt's, Evanston, Ill.; Holabird & Root & Burgee, Archts.

Bamberger's, Plainfield, N. J.; Abbott, Merkt & Co., Engrs.; Gimbel's, Cross County Shopping Center, Yonkers, N. Y.; L. Douglass, Archt.



Gimbel's Southgate, Milwaukee, Wisconsin; Welton Becket and Associates, Archts.; Gimbel's Cheltenham, Philadelphia, Pa.; Welton Becket & Assoc., Howell Lewis Shay, Archts.

Bullock's Palm Springs, Calif.; Wurdeman & Becket, Archts.

Lytton's, near Chicago, Ill.; Shaw, Metz & Dolio, Archts.

Emporium, Stonestown, Calif.; Welton Becket & Associates, Archts.

A FEW GENERAL RULES of thumb help to define the typical suburban branch department store. These cannot be considered more than approximations, since each store and each trading area varies. Of course parking space is required; what may be called the optimum parking area ratio is 2½ times the gross floor area of the store building, although the exact amount desirable in any given case may differ, depending on such items as accessibility of the site to residential areas within walking distance, or nearness to public transportation. The value of each car stall to the store can be estimated at $7200 of annual sales, a figure arrived at from the following formula: average unit sale × customers per car × minimum car turnover × selling days per year. In the average case this becomes $4.00 × 1½ × 4 × 300 = $7200. However, these figures vary radically and must be used with caution.

A suburban branch should carry a representative selection of all merchandise handled by the main store. It should have enough stock — which means storage space — to be self-sufficient for a period of time whose length depends on distance from the main store and warehouse, or on whether the branch will have facilities for receiving shipments directly from the manufacturer. If some major categories of merchandise are not carried the prestige of the main store may be lost to the branch, or the branch may lose its identity as a department store and become vulnerable to vigorous competition from neighboring specialty shops. The major classifications normally handled in a department store are:

Women's wear: dresses, coats, suits, etc.
Accessories: handbags, shoes, hosiery, lingerie, etc.
Men's wear: complete
Children's wear: complete
Dry Goods: linens, fabrics
Small wares: notions, stationery, etc.
Housewares
Home furnishings: rugs, draperies, lamps, etc.
Furniture
Miscellaneous: toys, luggage, etc.
Beauty salon
Restaurant

Size, Capacity, Costs

Suburban branches which qualify as department stores with minimum adequate assortments of most kinds of merchandise usually have not less than 50,000 sq ft of total floor area. A more complete store has about 150,000 sq ft in a moderate-sized community or 200,000 sq ft in a larger community. In the most active trading areas branches of very high-volume stores are now providing over 300,000 sq ft. In all of these, the sales area (including behind-the-scene stock area immediately adjacent to selling) is usually 60 to 70 percent of total floor area, depending on amount of self-selection fixturing and volume of shipments directly from manufacturers. Average finished heights for ceilings are 13 ft for the street floor and 11 ft 6 in. for other floors.

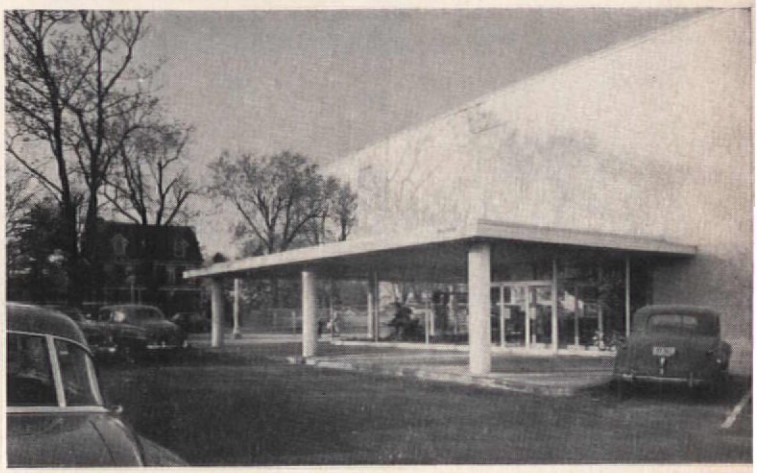
The average branch store has annual gross sales amounting to $70 to $100 per sq ft of selling area, includ-

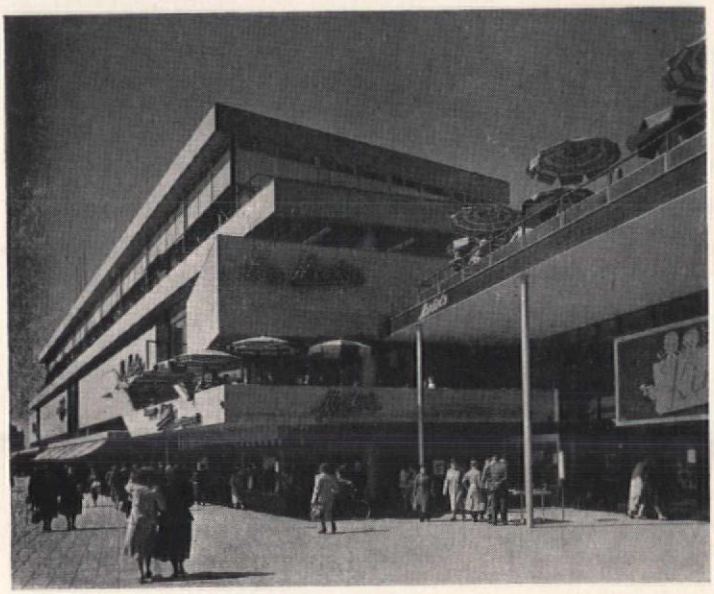
ing forward stock areas. Cost of the building, at current levels, varies generally from $15 to $20 per sq ft; cost of fixtures, $8 to $10 per sq ft. The typical suburban branch department store, then, has $7,500,000 of annual sales, 150,000 sq ft of area, a site providing 375,000 sq ft of parking space for 1250 cars. Variations from this average are as many as the various philosophies of merchandising and the sizes and types of communities.

Location, Site

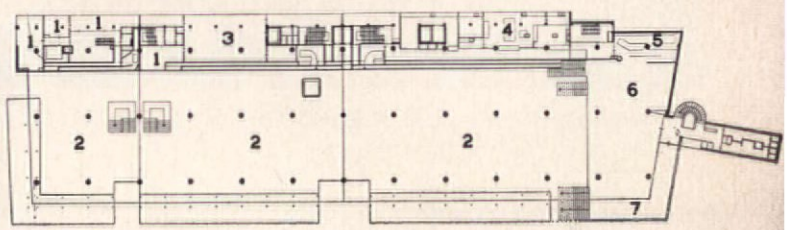
Ideally the suburban branch is located in an area covered by the established prestige and reached by the advertising of the downtown store. This strengthens the obligation to carry a good selection of merchandise of most kinds carried by the downtown store. Ready interchange of items between branch and downtown helps but does not solve the problem; the suburban

Abraham & Strauss, Hempstead, N. Y.; Daniel Schwartzman, Peter Copeland, Marcel Breuer, Archts.

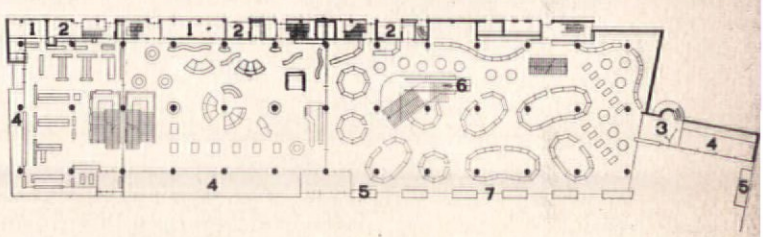




Jan Versne



MEZZANINE: 1, office; 2, open; 3, service dept.; 4, kitchen; 5, cafeteria; 6, restaurant; 7, balcony



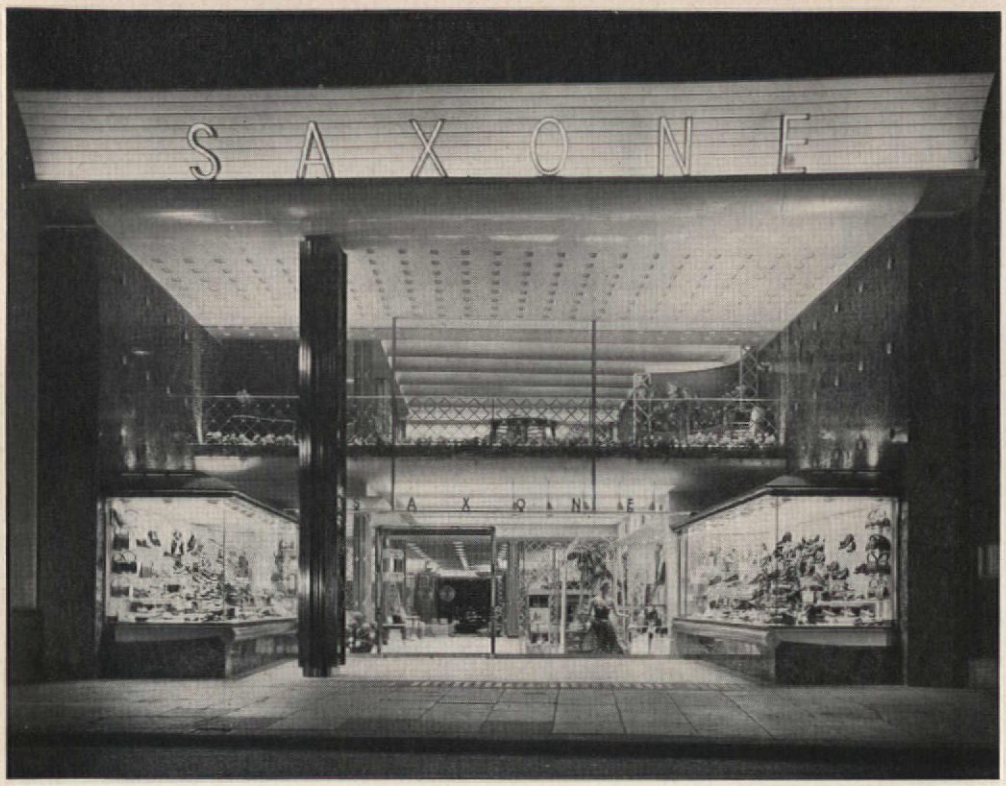
GROUND FLOOR: 1, storage; 2, shipping; 3, entry to restaurant; 4, show window; 5, show case 6, moving stair; 7, vertical sliding door

In Rotterdam, Holland, with little auto traffic, the ter Meulen, Wassen en van Vorst department store has greater window area than American counterparts; van den Broeck & Bakema, Archts.

customer is a "take-with" shopper. When the size of the plot — and hence of the store — is restricted, this has led many operators to limit the categories of branch store merchandise to those which can be stocked in sufficient width and depth. A branch in a suburb which is primarily a dormitory for city workers does tend to draw some business from the main store, particularly if the residents are established customers or have the same buying habits as main store patrons. But the larger department stores with more than one branch are finding that their main city plants, with merchandise handling facilities and highly skilled executive talent, can serve the branches with only minor adjustments and become more productive pieces of real estate when the sales volume of the branches is added. Sometimes main store sales have actually increased as prestige of the branches has grown.

Branch locations are of three principal kinds: 1,

Abraham & Strauss, Great Neck, N. Y.; Lathrop Douglas, Archt.



Edgar Hyman

Saxone Shoe Shop, left, London, England (Michael Egan, Archt.) proclaims itself a small shop by nature of marquee, show windows, etc. Center,

BRANCH DEPARTMENT STORES: Entrances, Show Windows, Façades

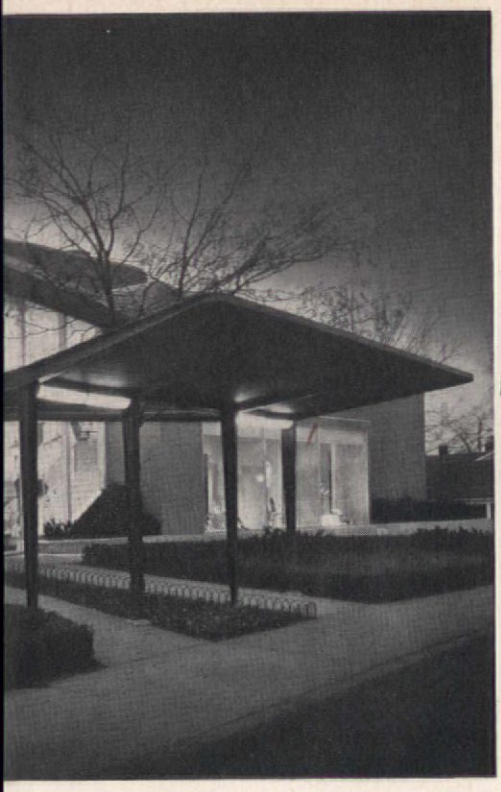
Photos below: top left, Hutzler Bros., Towson, Md. (Office of J. R. Edmunds, Jr.; Ketchum, Giná & Sharp, Archts.) has two entry levels created by elevating a cross street and building out under it. Bottom left, see-through façade and sidewalk show cases, Bullock's Westwood (Welton Becket & Assoc.) Top right, large window accenting the entrance is heavily curtained; Lytton's (Shaw Metz & Dolio). Bottom right, Aux Dames de France, department store in Toulon, France, has the generous fenestration which Europeans prefer (de Montaut, Gorska, Lajarrige, Poutu, Architects)

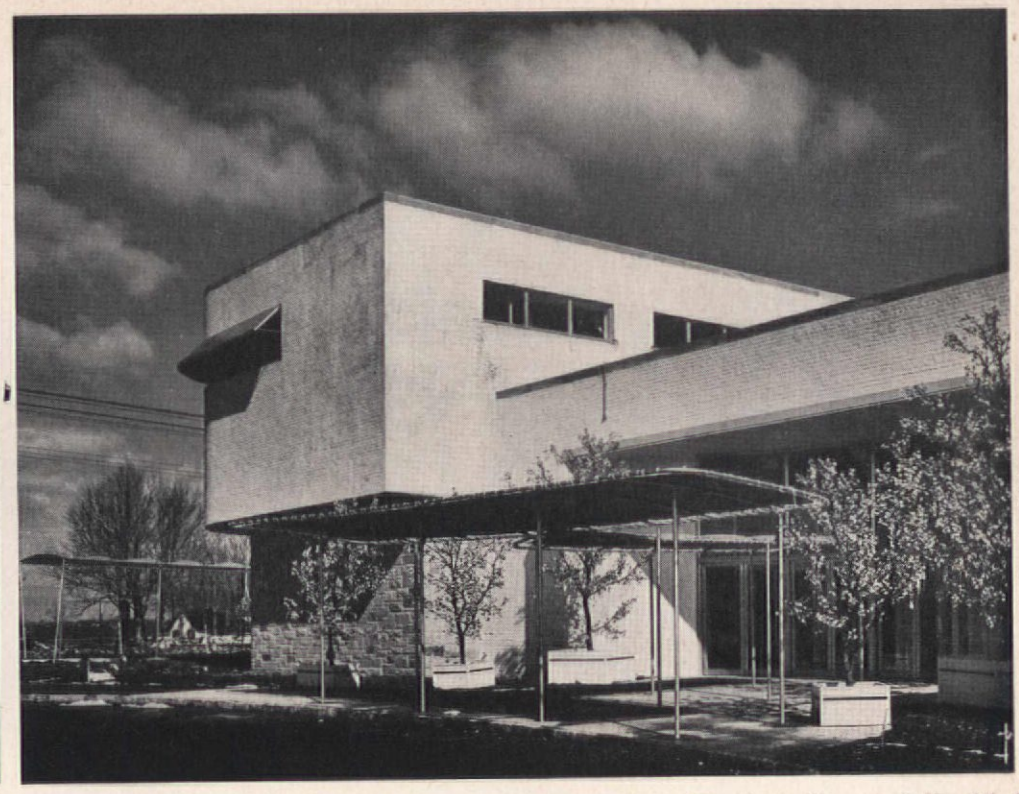
© Ezra Stoller

Hedrich-Blessing

Douglas M. Simmonds

Andre Pentinat





Center, Julius Shulman; right, Gottscho-Schleisner

floating marquee, Scruggs in Clayton, Mo. (Harris Armstrong, Archt.) Right, fabric marquees, Lord & Taylor Westchester (Starrett & Van Vleck)

center-of-town in a smaller community; 2, independent location in a suburban area; 3, key location in a shopping center. Parking space is essential to all three. Of the first two types, the most successful examples have profited from a prominent site on the main street or thoroughfare with parking contiguous to the building on one or more sides. When the site has permitted, roof parking or adjacent multi-story parking has been used successfully. The third type, the key unit in a shopping center, requires extremely careful evaluation of potential customer traffic, both directly from the parking area and secondarily from adjacent stores.

Entrances, Show Windows, Facades

When the building fronts on a main street or thoroughfare, or when the parking plan places the building in back of an area of parked cars, monumental entrances are often employed. Sometimes this has been done by combining a two-story glass area with the entrance and obtaining an impressive night effect; but considering that, indoors, the store is simply a selling mechanism, the strong daylighting is disadvantageous; it tends to backlight and silhouette the merchandise so that color and texture are difficult to discern without excessive

Douglas M. Simmonds

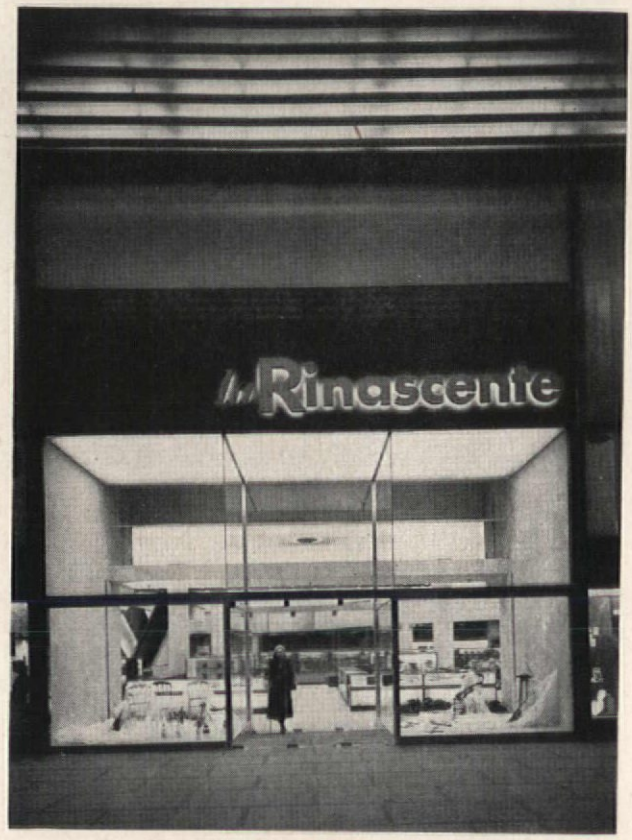
Bullock's Westwood, Westwood Village, Calif. (Welton Becket & Associates, Archts.) has the windowless façade demanded by most American merchandisers, multiple entrances immediately accessible from the parking area

artificial lighting. Yet generous, gracious entrances consistently characterize successful stores. The combination of show windows, both look-through and closed back, horizontally with the glass area of the entrances, has been used to this end. So also have inviting, protective entrance canopies which emphasize and identify the isolated store, and continuous covered walks which direct traffic and terminate logically at the main entrance. "Floating" marquees, supported at transom level, let daylight enter the store above them or provide a view out from within. The colorful laced awning has been used as a marquee to create an informal, gay atmosphere.

In suburban stores, display staffs are necessarily limited, non-selling area must be severely restricted, and the customer, who arrives by car, has little interest in window-shopping. The look-through window which makes the store interior the display is appropriate. When enclosed show windows seem advisable, the trend is to construct them as demountable units so they can be removed inexpensively when the space may be wanted for selling or for a look-through window. The free-standing show window, detached from the building, permits a free integration of the rich landscaping that is usually desirable with the store itself. The look-through window with a floor at selling floor level requires a sill or bulkhead at the minimum height needed for good maintenance; the partial look-through or enclosed window has a floor at bulkhead height, usually 12 to 20 in. Shadow boxes or freestanding show windows follow no set dimensional pattern, varying according to site or type of merchandise to be displayed. For all types the serious problem is lighting. In look-through windows, since lighting fixtures must be seen from all sides without glare, they are usually recessed in ceilings, which limits possible effects even if wide-angle equipment is used, and makes floor-lighting of low backgrounds essential. For enclosed windows, a sturdy, open, metal grid ceiling, preferably 2-way louvered, affords the needed flexibility for overhead lighting and for suspending props. Wing shields at both sides of the

(Text continued on page 191)

Simple aisle layout, Scruggs, Clayton, Mo.; Harris Armstrong, Archt.



Fortunati

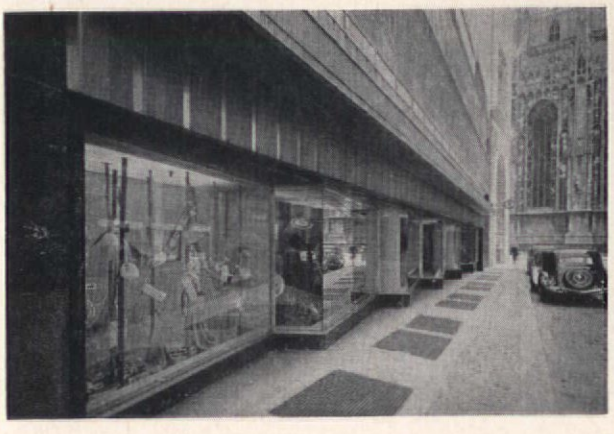
La Rinascente in Milan has many of the characteristics of American stores in its different traditional setting, many of them differently handled than they would be by American architects. The principal entrances permit the buying public to look through into the store's interior; show

DEPARTMENT STORE IN MILAN,

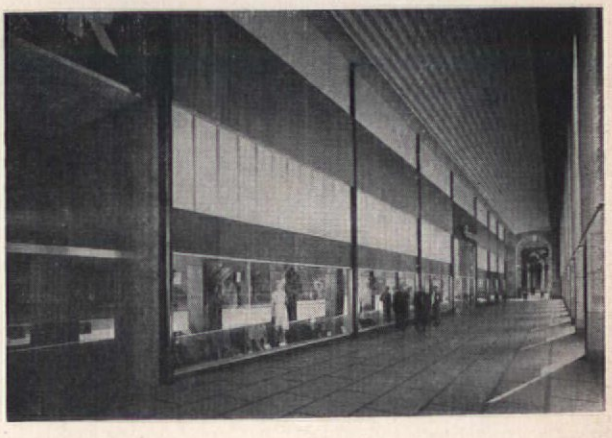
windows and the entrance on the opposite page are angled to relieve monotony and catch the eye of approaching shoppers. Above the entrance, opposite page, is a mosaic mural by Massimo Campigli, and above that, an over-all grid shielding fluorescent lights. The 9-meter-high arcade (far right) shelters windows composed in horizontal bands to preserve human scale; windows are protected by aluminum blinds which slide down from above to cover them

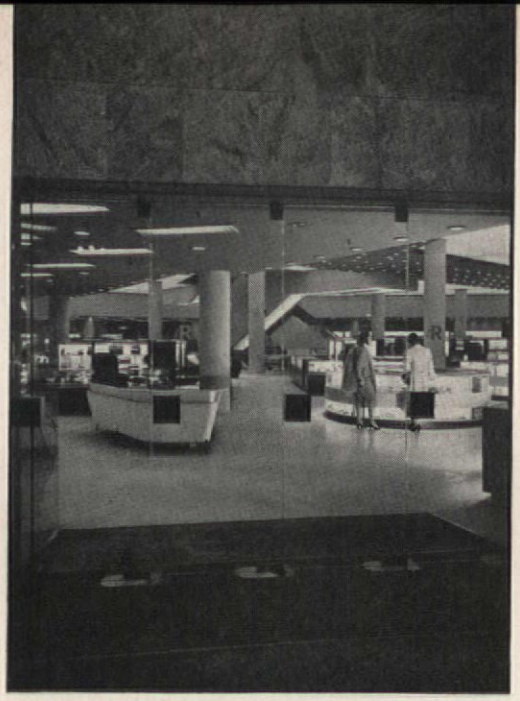
Fortunati

TALY; CARLO PAGANI, Architect



Mario Zacchetti

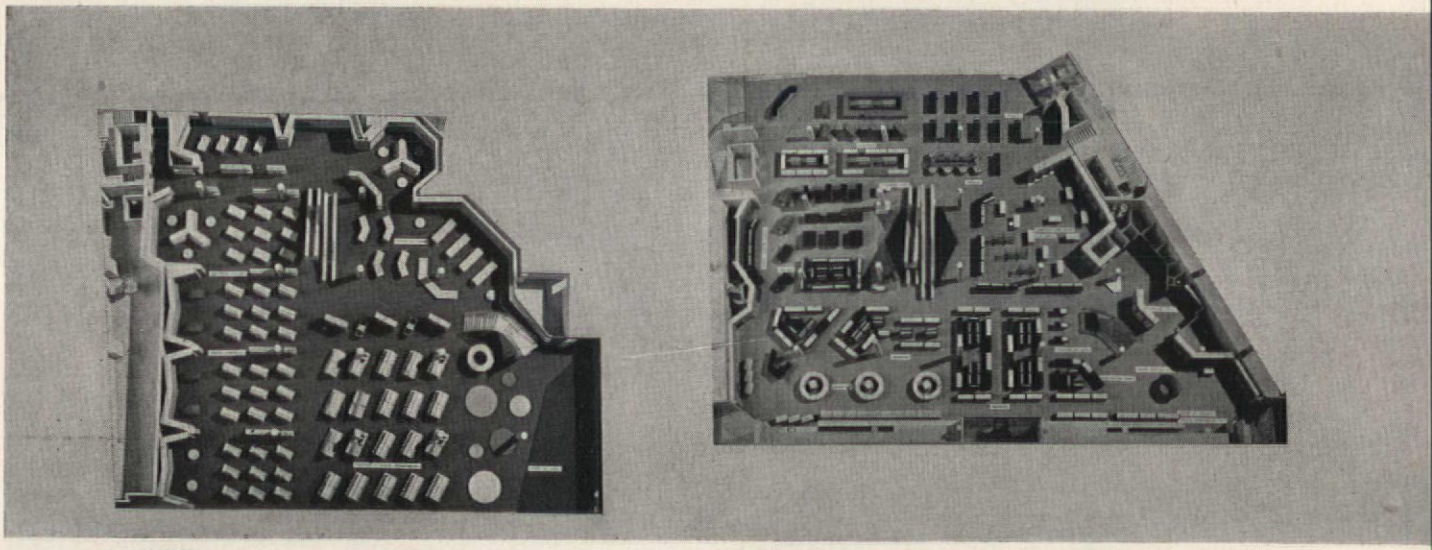




Fortunati

Plan models below show housewares in the basement, in a free arrangement of the gridiron plan; ground floor with 5 entrances, one at each corner and one in center of main front, wide aisles for free circulation, escalators in middle; first floor with piece goods, luggage, toys, charge accounts, etc.; second, tea room, beauty parlor, fashion theater, etc.

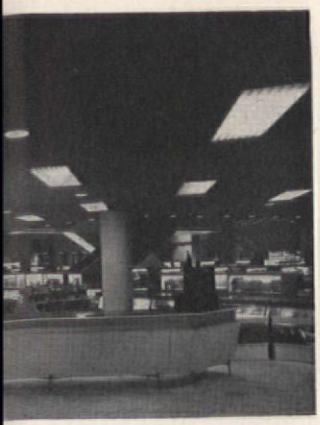
DEPARTMENT STORE, MILAN, ITALY



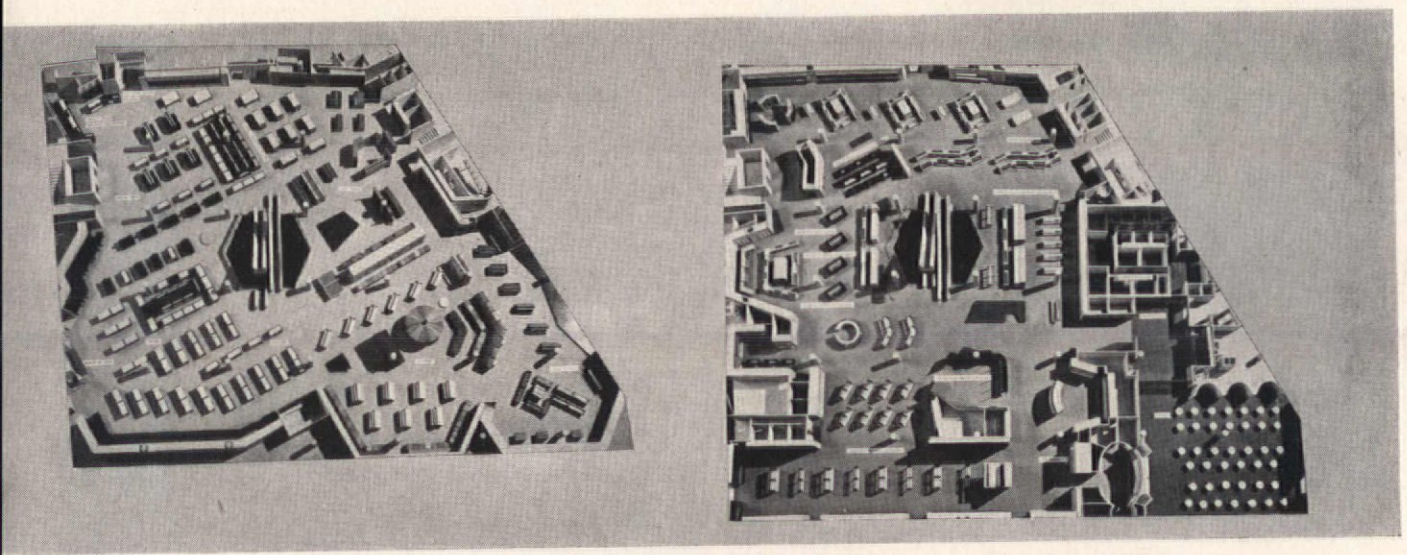
BASEMENT

GROUND FLOOR

Bottom, left to right: Simple housewares imaginatively displayed; china department, continuous lights on inner and outer edges of shelves; second floor, continuous storage mezzanine; millinery on second floor

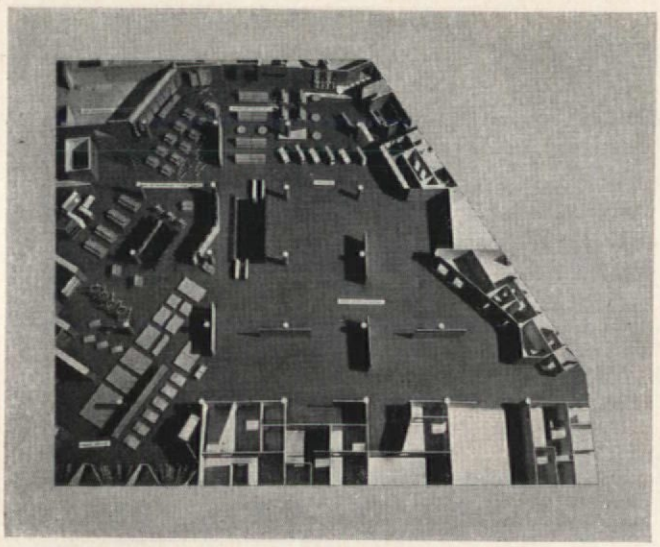


Top photos, left to right: An entrance; merry-go-round in toy department; ground floor with bright yellow counter for special sales in foreground; slanted mirror allows full view of the body; pattern department with storage, desk and shelf for customers' parcels. Ceilings are usually darkest in tone, floors lightest; rich, sophisticated colors are used



FIRST FLOOR

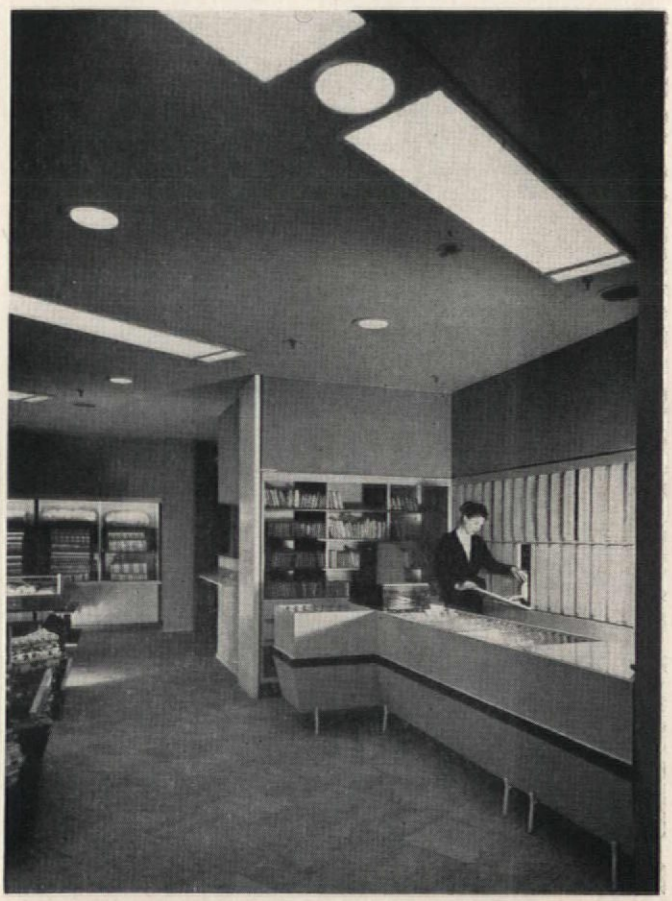
SECOND FLOOR



THIRD FLOOR

Open area in center of third floor (plan model at left) is for furniture pieces. Around this are flats for permanent displays which are changed periodically. Remaining area is for other household equipment. Photos, top: left, upholstery fabrics in open shelved fixtures whose tops are kept free for cutting; storage is behind curtain display in background. Right, model apartment, one of the permanent displays. Below, left, space around escalator kept free, not used for sales; right, fixture and counter for selling upholstery findings

Fortunati



Alexandre Georges

Diagonal and rectangular aisle layout, Abraham & Straus, Hempstead, N. Y. Daniel Schwartzman, Peter Copeland, Marcel Breuer, Architects

Julius Shulman

Generous space in gift section of home furnishings floor, Bullock's Palm Springs, Calif. Wurdeman & Becket, Architects

SUBURBAN BRANCH DEPARTMENT STORES

(Text continued from page 186)

window are also desirable for vertically adjustable lighting.

Opinion varies as to the value of window areas not used as show windows or combined with entrances. Color-corrected artificial lighting makes it unnecessary for the customer to see merchandise under actual daylight, but in some localities this habit persists. Where it does not, problems of fixturing and lighting are not complicated by the brightness differential between natural and artificial light; architects have welcomed the resulting windowless solutions, using uninterrupted masonry facades, introducing patterned relief in brick and concrete, and color in tile and richly veined marble.

Circulation, Vertical Transportation

A gridiron of aisles between fixtures is doubtless orderly but it does not always provide direct, graceful access from entrances and it is difficult to coordinate with the curving or angled walls often used to add interest or flexibility to the interior. In multi-floor stores the shortest possible aisles, generously wide, from entrances to escalators will increase customer traffic to other floors and add substantially to their sales. The completely "free-flow" plan complicates the fixtures, requiring costly wedge-shaped fillers for standard units or specially formed fixtures; it has been abandoned in most recent examples. Occasionally we find a curved aisle, introduced to meet a special condition in an otherwise straightforward pattern. Diagonal main aisles superimposed on a gridiron of minor aisles are now customary on street floors when entrances are at building corners; these are also used on other floors to feed customers directly into corner areas. Individual shops enclosed in high walls are used in stores designed for leisurely shopping and for such intimate departments as Maternity or exclusive salons for high-priced merchandise in high sales-volume stores.

The trend toward greater amounts of forward stock in reserve areas next to sales spaces, to enable the store to meet peak seasonal demands easily, affects circulation planning and increases the opportunity to create interesting interiors. Since these reserve areas are usually at the rear of the selling space, away from the aisle, and since their size varies according to the type of merchandise, the back wall of fixtures must change position from department to department. The resulting variety in depth of departments can be helpfully utilized in design.

In most large branch stores escalators are depended on for customer use. A passenger elevator is included only for the aged, the disabled, or the young mother with a baby buggy; many store operators believe the freight elevator can also serve these customers. Open stairways between floors now appear in smaller stores intended for leisurely shopping.

(Text continued on page 193)

Left, Sturtevant; center, Shulman

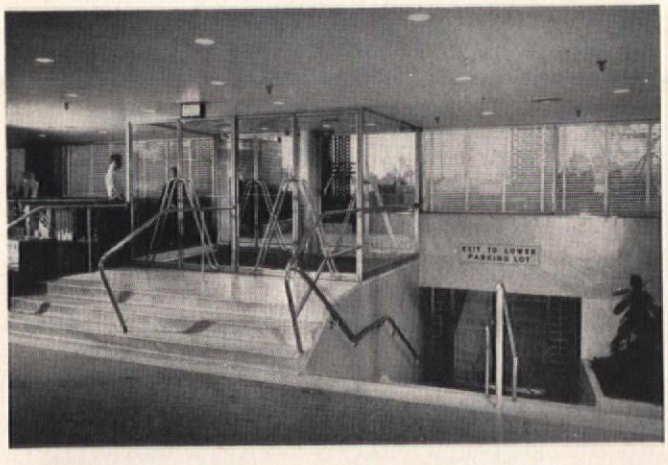
BRANCH DEPARTMENT STORES: Vertical Circulation

Fortunati

Photos above, left to right: stair to mezzanine, Ciro's of Bond Street, San Francisco, Raphael Soriano, Archt.; stair to mezzanine, Scruggs, Clayton, Mo., Harris Armstrong, Archt.; reinforced concrete stair, ter Meulen, Wassen en van Vorst Store, Rotterdam, Holland, van den Broek & Bakema, Architects. Below, escalators in (left) La Rinascenti, Milan, Carlo Pagani,

Gottscho-Schleisner

Archt.; and in Martin's, Garden City, N. Y., Frank Majer, Archt., Morris Lapidus, Assoc. Archt.; note selling fixtures. Two photos right, changes in level integrated by stairs and escalators. Harris Armstrong, Archt.



Julius Shulman

Julius Shulman

Lighting

Store lighting schemes today are varied and ingenious; few designers agree on methods. However, there is a recognizable trend toward reducing the insistent patterns of directional lighting. Fully recessed circular and square fixtures accomplish this successfully. When rectilinear fixtures are employed, many designers recess them above the finished ceiling to reduce their dominance and reduce the contrasting brightness between the darker ceiling and the light source. This requires careful coordination with mechanical lines above the suspended ceiling or additional space, which can add expensive cubage to the building.

Color-corrective lighting is wanted by most store operators; they have accepted the cost of combining fluorescent and incandescent sources in the same or adjoining fixtures. Also to be considered are the increased yearly cost of electricity and the cost of the additional load on the air conditioning system due to extensive use of incandescent lamps which emit more heat than fluorescent. Yet, though fluorescent lamps are economical, they are not now available in fully color-corrected types. Many architects, feeling that incandescent general lighting is the only means of providing flattering illumination of merchandise, are using it entirely for general lighting, with a minimum of fluorescent in show cases and baths of light on back walls.

Medium-level general lighting, combined with a few small departmental areas of high intensity where it is appropriate to the merchandise, is increasing. This helps to make the store interior more interesting in design and produces a desirable over-all economy. Strong spotlighting from hidden sources, so essential to good store illumination, requires careful planning of fixture layouts at the earliest stage of design of the building. The suspended, dry, acoustic ceiling has come into use as its flexibility and compatibility with changing lighting needs, its low first cost and other virtues, have become apparent.

Fixture Design

Recently completed stores are being evaluated on the quantity of self-selection fixturing they have used. These methods make it easy, through fixture design, for the customer to appraise, compare and select the exact size and pattern wanted, and to help complete the sale with a minimum of sales clerk assistance. There are as many opinions on the desirability of these various methods as there are store operators. There is nothing new about the technique. It dates back to the earliest market place or bazaar and was widely re-introduced by our most famous variety store operator at the turn of the century. The only new aspect is to make it graceful and acceptable to the department store customer who is used to full sales clerk assistance. It does require, however a re-study of the capacity, requirements and distribution of fixtures as well as proper use of signs, without which self-selection is ineffective. These in turn have affected the general appearance of the individual fixtures and can immeasurably affect the total appearance of the store. After some relatively timid introductions

of self-selection into new stores, we are beginning to see some violent swings in both directions, from wide general use in "high-volume" stores, to complete absence in the "prestige" store.

It is fortunate that the advantages of utmost flexibility and orderliness of merchandise display in fixtures have long been recognized by store architects. It takes a skillful designer to overcome the tendency to an over-mechanized appearance and yet to retain the efficiency and flexibility that are essential.

The influence of good architectural design, which employs structural materials to their full strength and expresses them frankly wherever possible, is being logically applied to fixture design and has an enormous effect on the general appearance of the store interior. Natural wood has been recognized as a precious material to be used in moderation and in sharp contrast with large areas of solid colors. Plastic laminates, which are more durable than natural wood for wearing surfaces and permit the use of light colors and subtle textures, have also strongly affected the design of fixtures.

Air conditioning and dust filtering devices now in almost universal use in retail stores have reduced the need for glass protection of even that merchandise which is normally accessible to the customer, and has simplified the details of fixturing, premitting more continuity of design and lightness of sections.

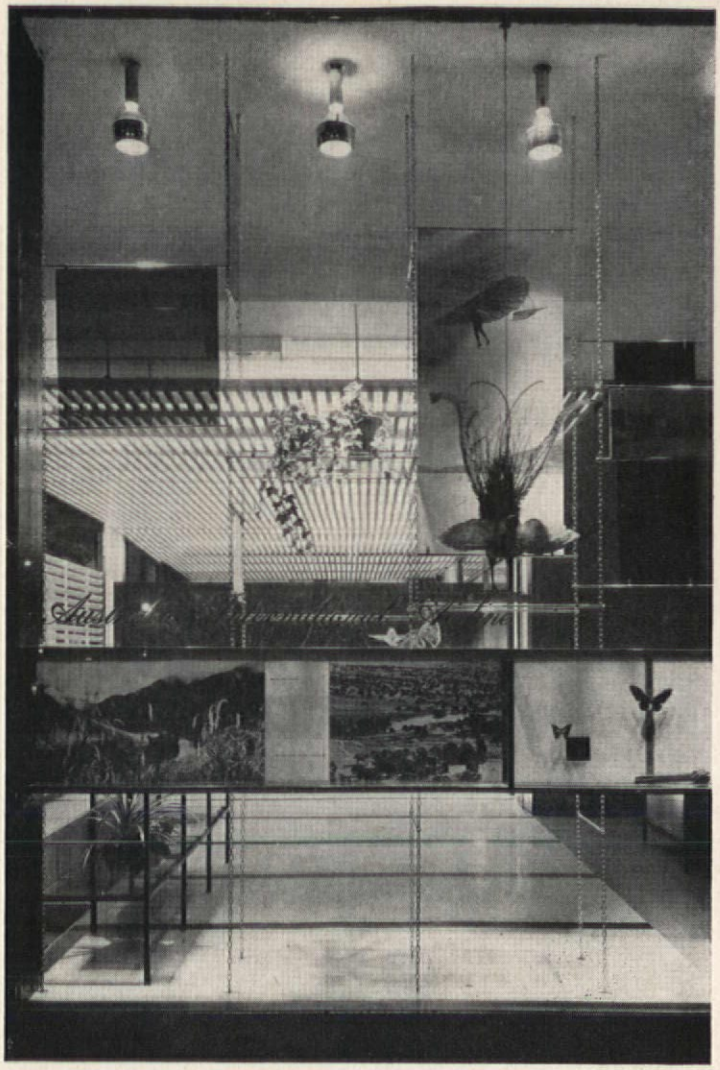
Character and Design Quality

This has become a matter of concern for the store executives as well as for architects. There is a strong wish to express the prestige and merchandising philosophy of the management and the nature of the community in the architecture of both exterior and interior.

Informality is the keynote of suburban store design, with a conscious attempt to express the difference between building for the casual living habits of the car-driving suburbanite and building for the city store where the only customers arriving by car are the chauffeur-driven "carriage trade." Landscaped areas are being used to give relief from the inevitable sea of asphalt resulting from the necessary parking requirement, and stores on restricted plots which have sacrificed all green areas to parking suffer badly in comparison. When the site permits, a small garden area for quiet relaxation will be deeply appreciated by the footsore shopper.

Interior merchandising departments should each be identified as separate entities, but at the same time should be in harmony with adjacent departments. Variety and change of pace can be obtained by judicious use of color, texture and materials.

In all these matters the architect has an important function. While his skill is no substitute for sound merchandising policy, the alert store operator today recognizes the value of the architect's contribution, of his resolution of the problems implicit in mercantile philosophy, operating policy, and the owner's desire for a totally successful establishment.



Alfred Cracknell

SUBURBAN BRANCH DEPARTMENT STORES: Lighting

Julius Shulman

Far left, decorative downlights and slatted wood ceiling, Qantas Imperial Airways office, London, England; James Cubitt and Partners, Archts. Left, top, Lightrend Shop, Los Angeles, Calif., Pereira & Luckman, Archts., center, Barton's candy shop, New York, N. Y., Victor Gruen, Archt. Immediately below, downlights, Wilson's Gift Shop, Statler Hotel, Los Angeles, Holabird & Root & Burgee, Archts. Bottom row, left, fluorescent fixtures, appliance department, May Co. Wilshire, Calif., A. C. Martin Associates, Archts.; center, circular coves and incandescent downlights, French, Shriner & Urner Shoe Store, New York, N. Y., Olindo Grossi, Archt. Right, lighted clothing display, Fedway Stores, Wichita, Kans., Meyer, Katzman, Archt.

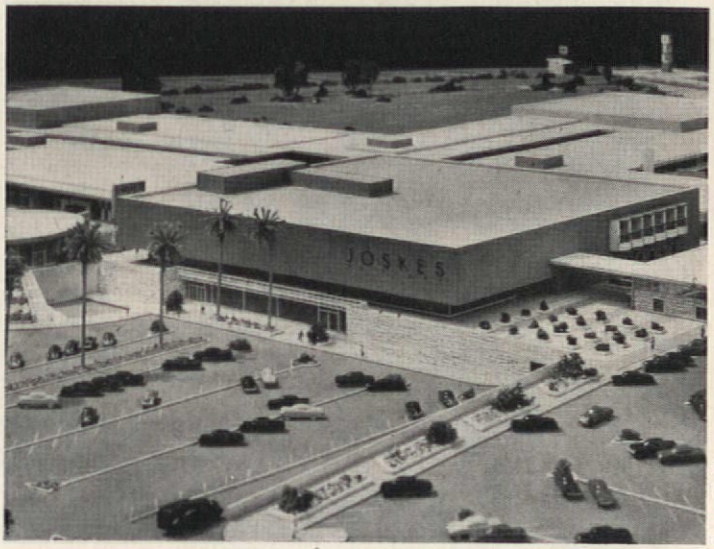
Julius Shulman

Robert Damora

Julius Shulman

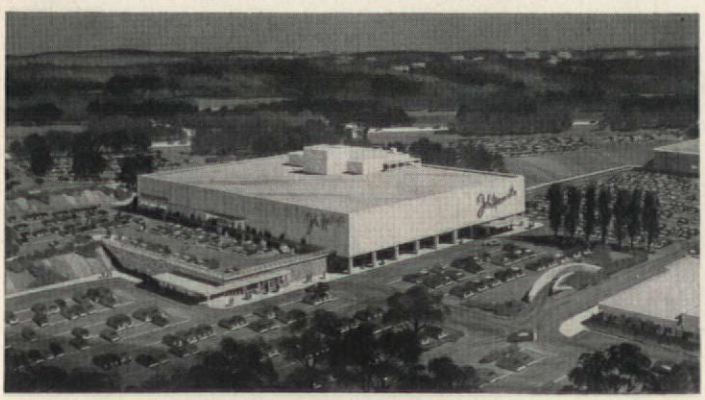
Ben Schnall

The branch department store of the immediate future exhibits few fundamental differences from its predecessors. The pattern is strongly established, so strongly that its effects are apparent in the very few downtown stores of recent construction, such as the new Macy's in



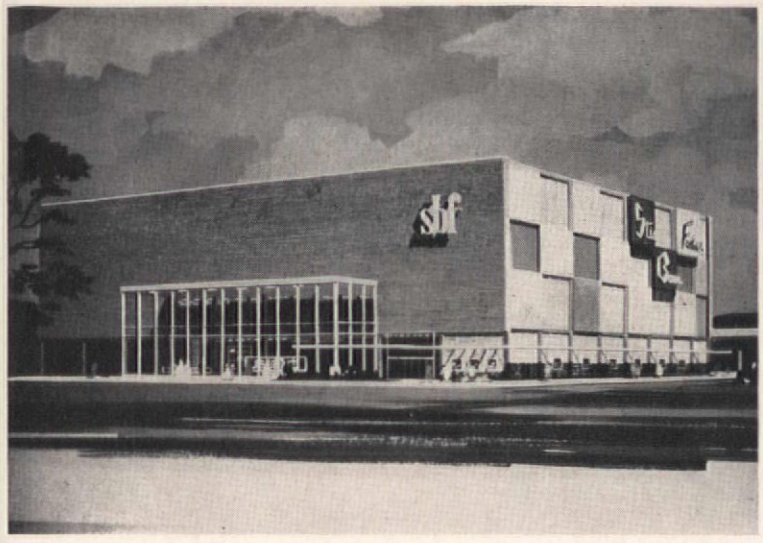
Roger Dudley

Kansas City, Mo. (Daniel Schwartzman, Kivett & Meyers, Gruen & Krummeck, Archts.) Perhaps, as in Joske's store in Gulfgate Shopping City, Houston, Texas (John Graham & Co., Architects & Engineers), several levels may be used for parking and for access directly to selling floors; however, this, too, has been done before. Graham also designed the Stix, Baer & Fuller store at Richmond Heights, St. Louis County, Mo., which employs brilliant color and a delicately framed entrance motif to relieve the otherwise severely economical exterior; yet its shape is no less austere than the Altman White Plains, N. Y. store, top right (Kahn & Jacobs, Archts.) Bottom row, left to right: John Wanamaker Westchester, N. Y., is being built on 15 acres of the large Cross County Shopping Center, Yonkers, N. Y., will have multi-level parking (Lathrop



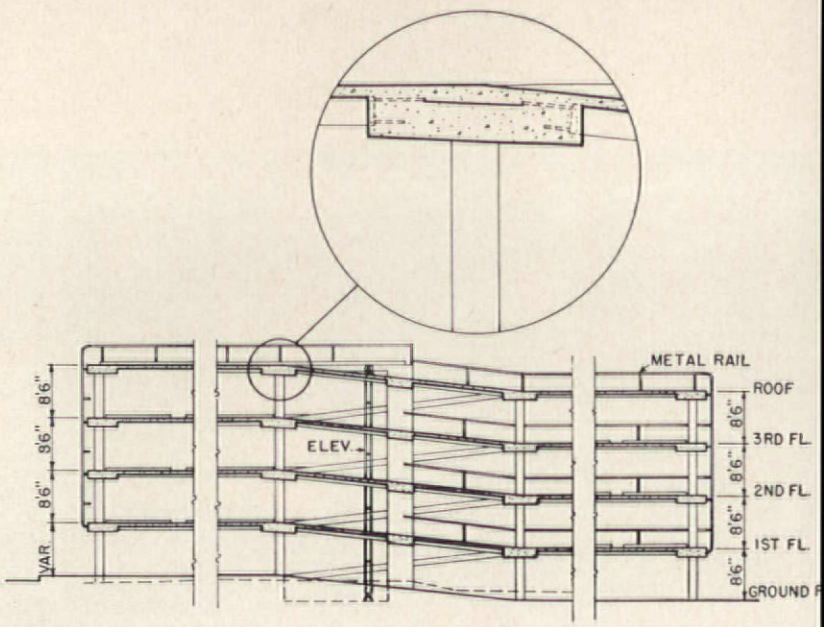
Douglass, Archt.); Bon Marché Store, Eugene, Ore. (another by John Graham) is being built for $7.13 per sq ft including general contract, mechanical, electrical and sprinkler systems, elevators and escalators. At right are two views of J. W. Robinson's, Beverly Hills, Calif.; a bronze and brass fountain by Bernard Rosenthal in sunken garden, and Wilshire Blvd. entrance (Pereira & Luckman, Charles O. Matcham, Archts.)

SUBURBAN BRANCH DEPARTMENT STORES



Marc Neuhof

ulman

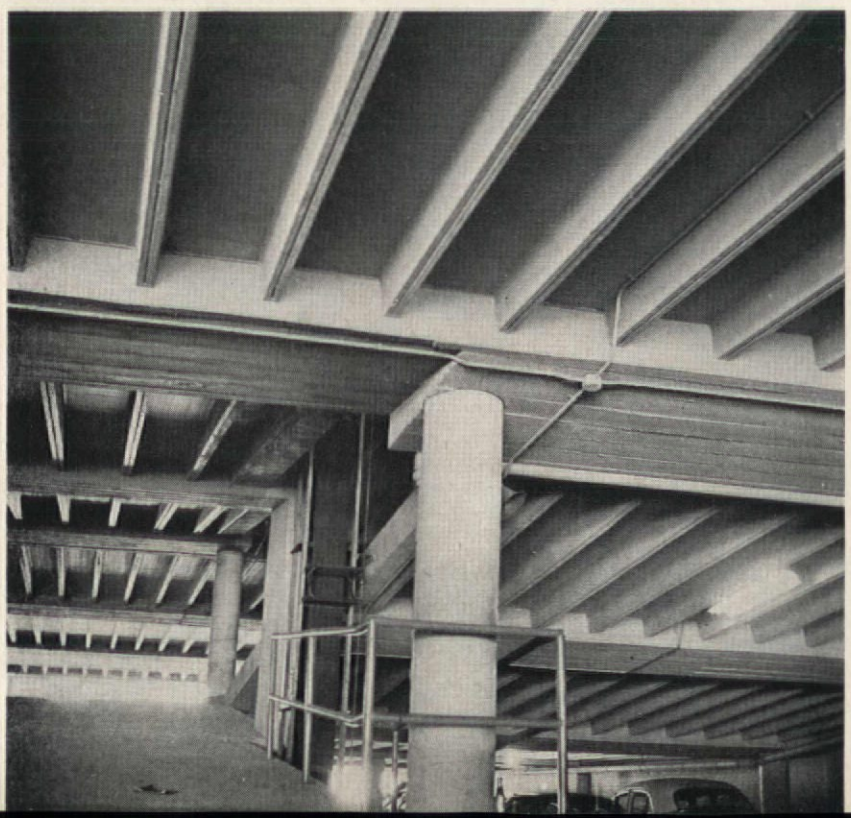


Precast joist-slabs — they make a quick floor

Precast concrete joist-slabs are shown on the facing page for a small portion of a typical floor. The rest of the plan—of the ground floor—indicates spacing of columns. Precast joist-slabs are not used on the ground floor. First-floor offices are under ramp on the ground floor; man-lift elevator rises between ramps. Cross section above illustrates how the split levels are put to advantage for ramps. Magnified section shows 2-in. projection of precast joist-slabs into beam

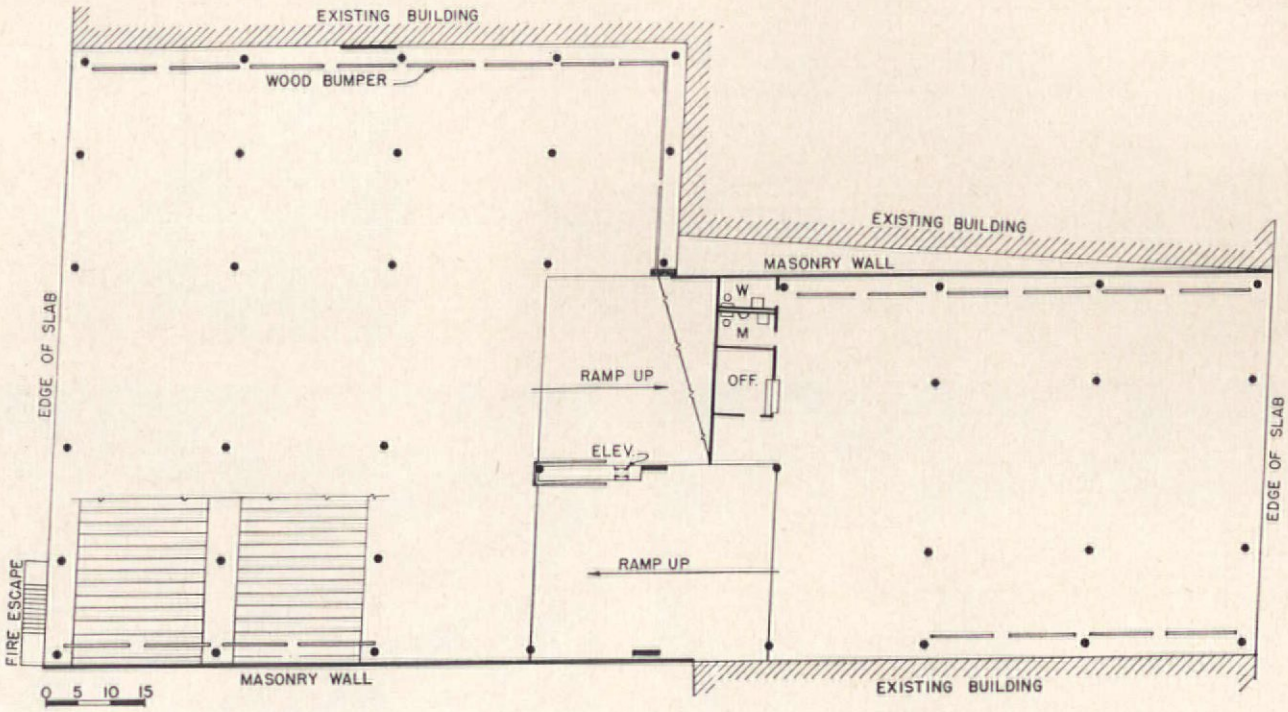
PARKING GARAGE DESIGNED FOR FAST, LOW-COST CONSTRUCTION

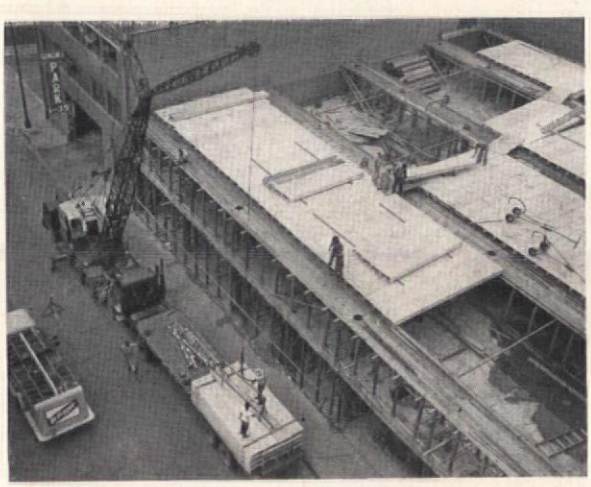
Jacob E. Anderson, Architect
John A. Murlin, Structural Engineer
James Stewart Company, Contractors

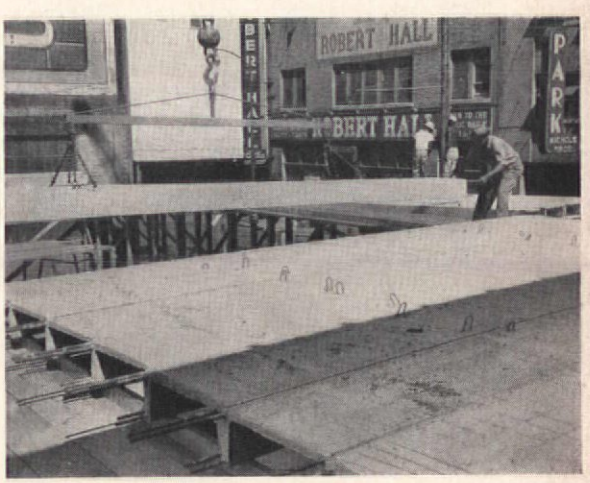


WHETHER or not an off-street parking garage pays off as a private venture depends largely — disregarding land cost — on how inexpensive the construction can be kept. A successful effort in this direction was this parking garage in Dallas, Texas, which was built primarily of precast concrete floor units. Once the foundation was in, the garage proper was put up in only 27 days — some sort

View into ramp between two levels in the completed garage. Bottom of the precast joist-slabs can be seen extending into the beams. Note the wiring for electrical fixtures







Prenumbered joist-slabs are hoisted . . . . . and placed two at a time

of a record for speed, says the structural engineer.

Construction costs were cut by three simple time- and money-saving methods:

1. Precast, lightweight concrete floor units combining joists and slabs trucked to the site and hoisted by crane.

2. Lightweight concrete beams, poured into formwork built of standard-size lumber.

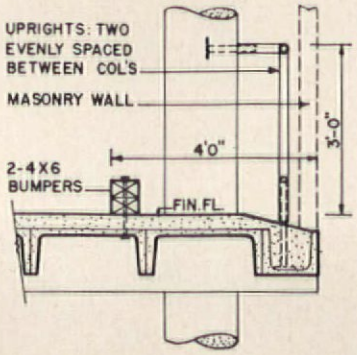
3. Lightweight concrete columns, poured into tubular fiber forms.

Since the main part of the open-construction garage is ramps and floor, the use of long-span precast concrete joist-slab units accounted for the principal savings. The prenumbered lightweight units, only 20 psf, were trucked to the site and hoisted two at a time in the exact order in which they were to be positioned on each floor.

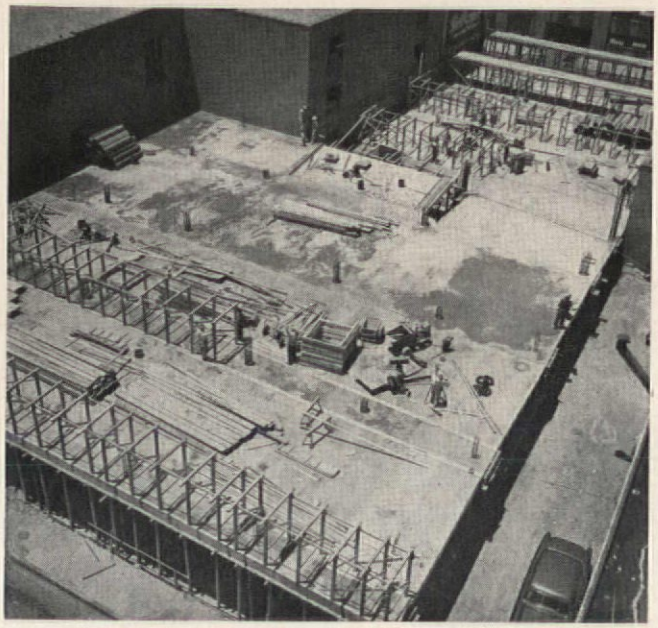
In order that a nominal 20-ft-long concrete joist could be used, 5-ft 3-in.-wide beams were spaced a distance of 20 ft between sides. Each 20-ft precast joist-slab, actually 20 ft 4 in. long by 9 in. deep, extends 2 in. at each end into the supporting beam, tying the floor structure together.

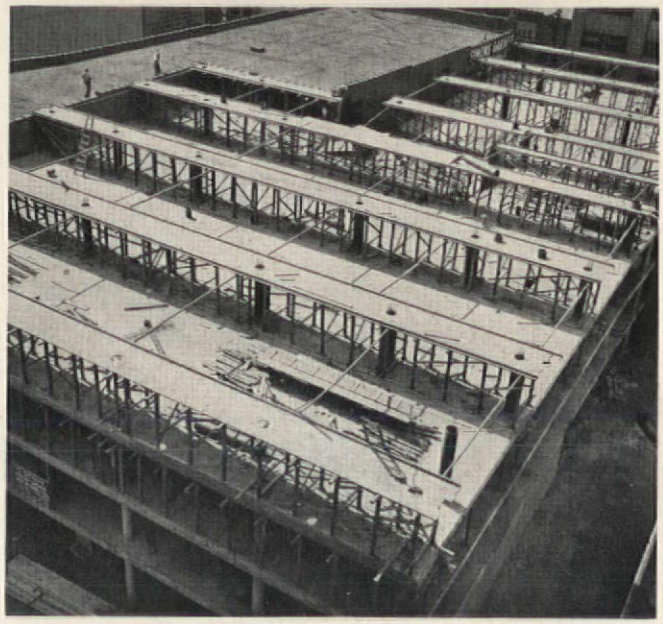
Beams of lightweight concrete were poured into formwork of standard-dimension lumber, thus eliminating time-consuming on-site carpentry. The depth of the wide, flat beams was determined from the worst span condition, and that depth was maintained throughout the building. Dimensioned lumber was brought to the site and the formwork erected across the width of the garage on each floor. Beam lumber was disassembled and re-used on alternate floors. Finished beams leave a minimum clearance of 7 ft 2⅜ in.

All columns, except the three supporting the center beam in the ramp, were poured into round fiber tubes, which were dropped over vertical and spiraled reinforcing steel rods. Holes to receive



Detail from upper right corner of garage shows steel railing, wooden bumper as well as cross section of concrete joist-slabs





Standard-size lumber cuts form costs

Standard-size lumber being assembled for beam formwork on second level. Fiber tubes are piled against existing building ready for insertion. Ramp to lower section of third level is being built

Lumber that was used for beams on second level is re-used for beams on fourth level. Most column tubes have been dropped over reinforcing steel rods and beam formwork is ready for joists

these tubes were precut in the beam formwork. The three columns supporting the center beam of the ramp are 48 in. wide by 14 in. deep to support the extra load of the ramp.

The concrete pour was the last step on each floor after the framework of lumber, precast joist-slabs, and fiber tubes was positioned. The lightweight concrete used for beams, columns and topping was poured monolithically. Approximately 1265 yards of lightweight concrete were used in the entire superstructure, covering 64,000 sq ft of floor area. Six ounces of a vinsol resin air entraining agent, plus ½ lb of a retarding agent were used per sack of cement. The weight of the reinforcing steel, including the wire mesh in the topping, was less than 1½ psf of floor area.

Some juggling was necessary in order to lay out the garage for the most efficient use for parking cars, and at the same time to satisfy the demands of the structural components. Extending through a complete block between two existing buildings, the garage was planned in two rectangular sections: the larger 100 ft by 96 ft 5¾ in., and the smaller 62 ft by 96 ft 9⅞ in. The ramp at the mid-section, joining the two sections of the garage, turned to advantage the 3-ft difference in elevation between the two streets.

Construction of the lightweight concrete superstructure took only 27 days from completion of the foundation and ground floor slab. And the garage was open for business just two months and a few days from the time the first corner stake was driven into the foundation. Today, according to the designer, the operation is proving the worth of the planning: A simply designed, simply constructed off-street parking garage is paying for itself.

Fiber tubes mold columns

Close-up shows fiber tube being dropped over steel reinforcing rods. Lightweight concrete will be poured into form monolithically with beams and topping

BASIC ELEMENTS IN THE PLANNING OF ELECTRICAL SYSTEMS

By Felix B. Graham
Chief of Electrical Department
Syska & Hennessy, Inc.,
Consulting Engineers

ARTICLE 3: STORES—WITH EMPHASIS ON SHOPPING CENTERS

Future articles in this series will be on industrial buildings, schools and hospitals. Article 1 in February covered general principles, and Article 2 in March, office buildings.

THE ULTIMATE GOAL of a store's electrical system is to help provide an environment of sales stimulation, convenience and pleasantness. The components that make this possible, including lighting and all sorts of powered equipment are discussed in the text and listed in the check list, "Electrical Requirement for a Hypothetical Shopping Center," pp. 202–204.

Electrical System Characteristics

Here is a suggested order of importance of electrical system qualities:

1. *Safety (minimum hazard to life and property); 2. Flexibility; 3. Reliability; 4. Appearance; 5. Ease of maintenance; 6. Low initial cost; 7. Durability; 8. Small space requirements; 9. Adherence to owner's standards.*

By way of explanation — the top importance of safety, flexibility and reliability are obvious. Appearance — meaning lighting effects and concealment of equipment — rates near the head of the list. Durability is not so important, since store interiors are frequently changed. In chain stores, adherence to owner's standards is important, since these standards are established to fit particular needs.

Size of Electrical Loads

Electrical demand loads for stores vary greatly. A small apparel store may require only 3 watts per sq ft. Chain variety stores and department stores take about 7 w per sq ft. A men's wear store, a large drug store, and a jewelry store with elaborate lighting have loads of about 10 w per sq ft. (Air conditioning is not included in the above values.)

What Does the Owner Install?

There is no set pattern for how much electrical work is furnished by the owner. It varies not only with each shopping center, but even with different tenants in the same center. Occasionally this has caused misunderstandings and bad feelings. This can be avoided if each lease states clearly where the owner's obligations end and the tenant's begin. In practice there are three basic stages of completeness:

Stage 1: Owner furnishes all electrical work for shopping center public spaces, and an electrical distribution system which terminates with feeder conductors brought into the store. The tenant installs everything inside.

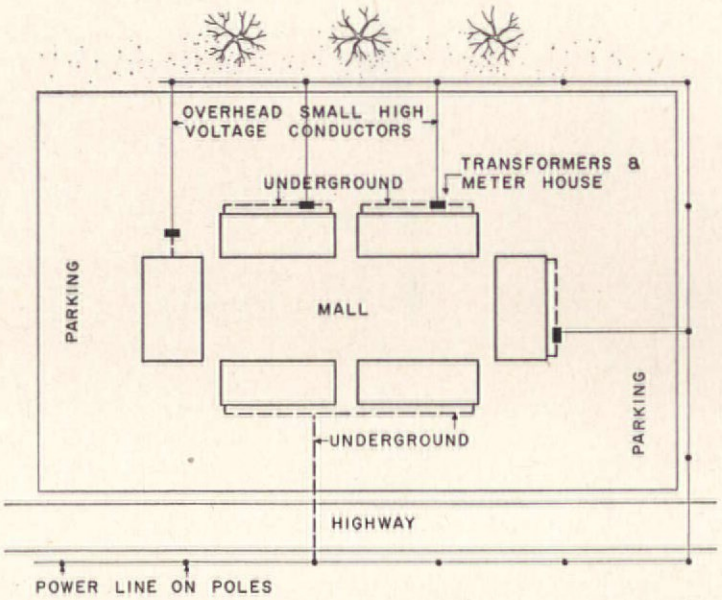
Stage 2: The owner installs items in Stage 1 plus distribution panels and complete wiring of receptacle, ceiling and floor outlets. Since the location of these outlets is usually unknown when drawings are being done, the owner sets aside a sum of money for this work based on a predetermined schedule of a certain number of outlets per square foot of floor space. Unit prices are requested in the bid so that adjustments can be made if the tenant needs more or less outlets than the plans indicate. The tenant furnishes his own lighting fixtures and auxiliary systems.

Stage 3: Stages 1 and 2 plus all other electrical work. This is rarely done.

Pointers on Electrical Distribution

These systems take various forms, depending on the practices and rules of the power company. Here, however, are some basic recommendations that apply to all systems:

1. Keep the low voltage runs short. These lines require a lot of copper. It is more economical, and more reliable, to distribute a number of transformers over a large area, each serving a small section, than to try to concentrate voltage transformation in a few spots. The 277/480-v system described in the previous article, although offering economies in office and industrial buildings, does not appear well suited to stores. This is because a large amount of power at 120 v is required for the abundance of incandescent show window, flood and spot lighting, as well as all fluorescent lighting less than 8 ft above the floor. Much confusion and error could occur in initial and future installations with a mixing of 120 and 277 v. Also, the 277/480-v system probably would not save much



Economical compromise for outside wiring of a shopping center. Opposite highway, all wires are underground, for appearance. At sides and at rear (poles blend with trees) only high voltage conductors are overhead

ELECTRICAL REQUIREMENTS FOR A

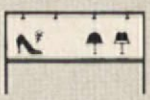
POWERED EQUIPMENT

DEPARTMENT STORE

Power outlets spaced high and low on columns • Floor outlets at selected counters • Audible paging system • Store opening and closing bells • Alarms: burglar, sprinkler, fire • Transportation: elevators, moving stairways, conveyors • Telephones: booths, telephones at selected counters.

NOTES: (1) Provide circuiting for maximum flexibility.
(2) Provide spare capacity for temporary high-intensity displays.

WOMEN'S AND MEN'S APPAREL SHOPS



Power outlets in tailor shop.
Burglar alarm.

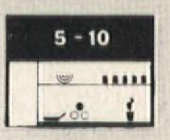
HOME FURNISHINGS STORE

Floor outlets for lamps.
Alarms: burglar, sprinkler.

APPLIANCE STORE

Power outlets for appliance demonstration.
Amplified antenna system for TV.
Burglar alarm.

VARIETY STORE



Floor outlet for each sales counter • Multiple floor outlets for lamp sales
Soda fountain—see drug store • Sound system for music and announcements
Record players • Power for materials handling • Moving stairways
Alarms: burglar, sprinkler.

FOOD MARKET

Power outlets for: Cash registers • Check-out conveyors, bulk conveyors
Door openers • Refrigerated cases • Meat preparation • Coffee grinder
Soft drink machine
Sound system for music, announcements • Burglar alarm.

DRUG STORE

Power outlets for: Food and drug refrigeration • Food preparation and serving equipment • Dish washer • Cash register
Phone booths • Burglar alarm.

BARBER SHOP—BEAUTY SHOP

Outlets
Barber shop: 3 receptacles on one circuit per chair; outlets for sun-lamp and dryer.
Beauty shop: separate heavy-duty circuit for dryer.

RESTAURANT

Power outlets for each appliance (correct voltage, phase and capacity)
Infrared food warmers • Music distribution • Phone booth • Burglar alarm.
Separate circuit for cash register.

*NOTES: (1) Heat-resistant exhaust hood wiring.
(2) Refrigeration power independent of master switch.
(3) Handy location for exhaust hood fan switch.

PROFESSIONAL—OFFICE BUILDING

For basic requirements, see chart pages 206-207 March, 1954.

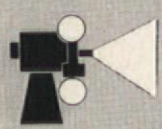
Loads to be added
For doctors: sterilizer, X-ray, diathermy, equipment for specialized medicine.
For dentists: dental chair, X-ray, sterilizer.
Loads to be subtracted
Heating, cooling, water circulation if provided by a central plant (shopping center).

HYPOTHETICAL SHOPPING CENTER

LIGHTING

TYPES AND LOCATIONS	EFFECTS AND RECOMMENDATIONS
Lighting for circulation areas.	10 to 15 ft–c
Lighting for sales areas.	40 to 60 ft–c
Lighting for featured displays.	80 to 150 ft–c
General lighting.	Soft, warm for women's shops; soft, cool for men's shops.
Concealed lighting (fluorescent) in racks, shelves, show cases and niches.	For color rendition.
Downlights (incandescent).	For highlights on selected displays.
Floods and spots.	
Mirror lighting.	Well diffused, warm.
General lighting.	Indirect, incandescent, augmented by floor lamps to simulate home conditions.
Downlights.	Highlights for interest, sparkle.
Valance lighting.	Warm white for draperies.
General lighting.	
Floods and spots.	
Wall lighting.	
General lighting.	High intensity, glare free.
Floods and spots.	For use on feature displays.
Jewelry counter lighting.	Cool light.
Stock room lighting.	Illumination of 10 ft–c
General lighting.	High intensity, special emphasis on shelves.
Perimeter lighting.	
Concealed lighting in refrigerated cases.	Deluxe cool white fluorescent best.
Baked goods lighting.	Deluxe warm white fluorescent best.
Downlights over fruits and vegetables.	
General lighting.	
Continuous strips concealed in wall cabinets.	
Spots on featured displays.	
Floor outlets for illuminated section signs.	
Lighting for food preparation and clean-up.	
General lighting.	High intensity, cool white illumination; large area, low brightness, semi-indirect luminaries to avoid uncomfortable glare.
General lighting. Valance lighting.	High intensity, warm white illumination; luminaries similar to barber shop.
General lighting.	Low to medium intensity. Incandescent lighting suited for atmosphere; warm fluorescent lighting suited for high traffic. Avoid high intensity, glare, bright spots on diners.
Display lighting.	
Spotlights for planting areas.	Adds life to green plants.
Kitchen and dishwashing area.	Cool white fluorescent, recessed fixtures, with flat glass bottom and gaskets for easy cleaning.
Vapor-proof hood lights.	

ELECTRICAL REQUIREMENTS FOR A HYPOTHETICAL SHOPPING CENTER

	POWERED EQUIPMENT	LIGHTING—TYPES AND LOCATIONS EFFECTS AND RECOMMENDATIONS	
BOILER AND REFRIGERATION PLANT	Cooling, heating, water circulation. Equipment control and alarms of equipment. (For complete list refer to page 206, March, 1954)		
SERVICE STATION	Outside service area: gasoline pumps, car entrance bell. Inside service area: garage door operators, fume exhaust fan, outlets for portable equipment, air compressor, battery charger. General: vending machines, unit heaters, phone booths. NOTES: (1) Waterproof wiring for car washing. (2) Observe code requirements for hazardous locations.	Pump island lighting. Explosion-proof pit lights. Signs.	
PARKING AREA LIGHTING		Floods on towers directed toward buildings. Street lighting standards: Incandescent, fluorescent or color-corrected mercury vapor.	
THEATER	Projection booth: projection machines, film rewinding machines, amplifiers, TV projection. Auditorium: hearing aid system. Stage: loudspeakers, curtain operators. Lobby: vending machines, phone booths. Lounge: music system, coffee maker, clock. General: electric heater for ticket booth; vacuum cleaner system; telephones in ticket booth, office, projection room; fire alarm. NOTES: (1) Provide for relamping in high ceilings. (2) Observe code requirements in projection room.	Dimmer controlled house lighting. Aisle and step lights. • Stage lighting. Clean-up lighting. • Signs. • Exit lights. Emergency lighting.	
MALL AND WALKWAYS LIGHTING		Incandescent, weather resistant, rust-proof; accurately aligned. Sufficient illumination for circulation, but not too much to detract from show windows.	
CENTRAL FEATURE		Water fountain, sculpture, etc.: dramatic, colorful illumination.	
DELIVERY TUNNEL	Traffic signals at entrance and exit. Power for ventilation. Carbon monoxide alarm.	Illumination of 5 to 10 ft-c throughout. 100 ft-c at entrance decreasing toward inside.	
PUBLIC TOILETS	Outlets for hand dryers. Toilet germicidal lamps. Air germicidal lamps.	Glass bottom fluorescent recessed in ceiling over sinks and stalls. Good lighting promotes cleanliness.	

because of the additional transformers required to supply 120 v.

2. *Keep outside wiring underground.* Nothing makes a more shabby, haphazard looking shopping center than a flock of utility poles with their crossarms, insulators and dangling wires. For a small cost, much of this could be eliminated by placing wiring underground.

3. *Keep the system expansible.* Oversize the conduits feeding each store so that unforseen increases in load can be supplied merely by increasing wire sizes. Provide empty spare conduits for future stores.

Lighting

Show Windows. Attraction through lighting, except for signs, begins with show windows. A problem here is the visual barriers caused by reflections from sky, ground and street objects. These barriers can be overcome partially by overhangs to keep out direct sun. Lighting aids if it is at a very high illumination intensity and backgrounds are kept light in color.

Appearance of Stores in Groups. It is common practice in high-traffic stores to use fluorescent fixtures with bare lamps exposed. When stores are grouped closely, the brightness of these lamps may cause an annoying contrast between stores. The eyes of passersby are drawn to the apparent brilliance of a mass of bare lamps, and stores with shielded or concealed luminaires appear relatively dark.

This problem should be considered in the layout of stores for a shopping center. In addition, the owner of a shopping center may want to incorporate certain brightness limitations in the leases, with the idea of achieving a more coordinated appearance. The same applies to signs.

General Interior Lighting. On the inside of the store, high brightness on relatively small displays gains attention. A shopper will be drawn to a display with 200 ft-c lighting placed near an aisle with 20 ft-c of general lighting.

There are many factors which influence the choice of the type, intensity and color of a lighting system. To be considered are the size, color, form, texture and finish of merchandise.

In general, uniform, fluorescent lighting will result in a flat, monotonous appearance, while direct downlighting alone will create too much brightness and shadow. But the two together augmented by show case, valance and cove lighting will give good color and sparkle.

The trend away from even, overall illumination has been demonstrated in the new Hutzler Brothers department store near Baltimore, designed by Ketchum, Giná and Sharp. Morris Ketchum says, "Why supply a high level of general illumination and then build up still higher levels on displays of merchandise to make them stand out?" In this store there are 60 ft-c directly on the merchandise, and the aisle receives 8 to 10 ft-c of spilled light. There is also niche, cove and perimeter lighting.

Luminous and louverall (egg-crate) ceilings have become very popular, but if used indiscriminately with large, unbroken expanses of the same material, they tend to become monotonous, and even hard on the eyes. Such areas should be broken up into large elements with solid ceiling separating them.

Luminous elements of different corrugation sizes and louverall fixtures with different louver sizes can be mixed to add interest.

In order to avoid reflections of light sources in show cases or counter tops, fixtures should not be located directly over them.

When bare lamp fixtures are used, as in supermarkets, the lighting quality is better if fixtures are suspended rather than surface mounted (less brightness and shadow).

Outside Lighting of Shopping Centers. Walkway lighting should aid in unifying the shopping center. It should be sufficient for safety and comfort, but not too much to detract from show windows.

Parking areas should have from 1 to 2 ft-c. Lighting should not be aimed from roofs of low buildings at the parking area, as this will blind shoppers walking toward the stores. Poles or towers 40- to 60-ft high with 750- to 1000-watt floodlights are effective and inexpensive. If individual street lighting standards are desired, for appearance, more will be required than of poles, and cost will probably be higher.

Light poles can be connected by neoprene-jacketed cable, without conduit, buried under the parking lot. The inherently long cable runs result in high voltage drops, but this is not objectionable if kept within 10 per cent. Lamp life will be lengthened, although light output is reduced.

For example, with a 120-v supply voltage and a 10 per cent drop, light output will be cut 25 per cent, but lamp life will be increased 250 per cent.

Freight Tunnel Lighting. Where freight is delivered to stores above ground, bracket lights above or adjacent to delivery doors are sufficient.

In a shopping center with a truck tunnel, lights will be operating almost continuously, so fluorescent units are recommended over incandescent for their lower power consumption.

If the tunnel is used at daytime, illumination at the entrance should be 100 ft-c or more, decreasing to normal inside intensity. If used at nighttime, intensity at the tunnel entrance should be reduced, or else the area outside the entrance should be intensely lighted to make the transition gradual.

Uniform general lighting combined with valance and shelf-rack lighting prevents a flat, monotonous appearance. Photo, left, shows effect with overhead lights off; photo, right, all lights on. Lerner's, New York City. Cordes, Bartos and Minhos, Architects

PORCELAIN PANELS AND LIGHTWEIGHT CURTAIN WALLS EASE BUILDING LOAD

Texas Company Office Building
New Orleans, Louisiana

Claude E. Hooton, Architect

D. M. Cornblatt and Associates, Consulting Structural Engineers

Haase Construction Company, Inc., General Contractors

Frank Lotz Miller

AN 85- BY 114-FT SITE of soggy New Orleans soil posed a difficult problem to the planners of the new Texas Company office building. Since the site was so small and narrow, a tall building had to be built to meet space requirements, adding to the difficulty. Lightening of the load on the foundation was accomplished by enclosing the building with curtain walls of aluminum and glass, and by facing with porcelain enamel panels the vertical section of the 17-story building which displays the Texaco sign.

The lightweight curtain walls are almost entirely of glass, with opaque spandrels, in some of which are aluminum air-intake louvers. Special windows for the air-conditioned building pivot vertically between aluminum mullions.

Aluminum Sunshades

On exposures subject to extensive periods of direct sunlight, the aluminum window mullions project to form 1¼-ft-deep fins. These fins reduce glare, while affording maximum light, and decrease the heat load, affecting savings in air conditioning. The windows are specially designed, vertically pivoted sash, which permit cleaning from inside the building.

Porcelain Enamel Panels

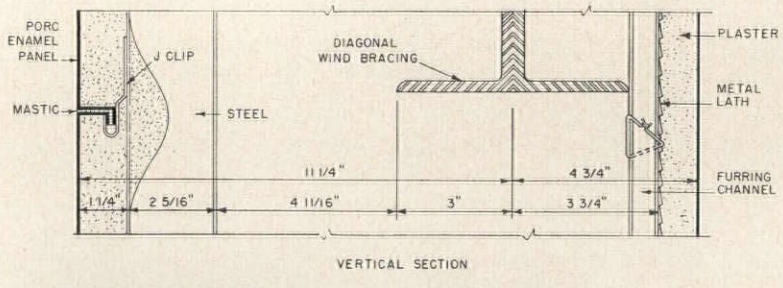
The 22-ft-wide vertical sweep of green porcelain enamel panels displays the trade name "Texaco" at the top in 15½-ft letters of red plastic. The Canal St. side of the curtain wall, is outlined in porcelain enamel, and the penthouse is also faced with the panels.

As shown in section, the panels are secured very simply to special J-type furring strips which are attached to light-gauge steel studs. A mastic caulk seals the self-flashing panels together for watertightness.

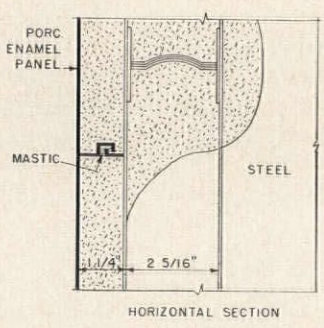
As part of the all-welded steel framing, the diagonal wind bracing forms trusses at critical points of loading. At the narrow end walls, where the wind bracing is located, brick and concrete back-up form the curtain walls.

Heating and Air Conditioning

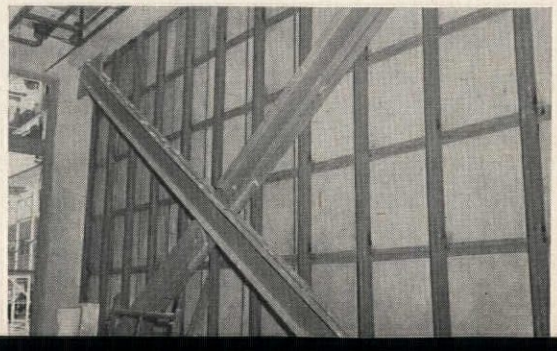
Porcelain enamel panels are used in the interior to encase the individual air conditioning units which are located beneath the window sills. As shown in the sectional drawing, fresh air is supplied to each unit through intake louvers



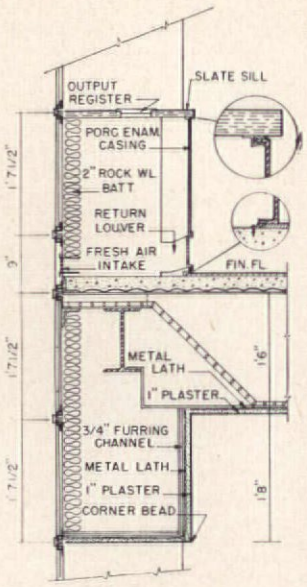
VERTICAL SECTION

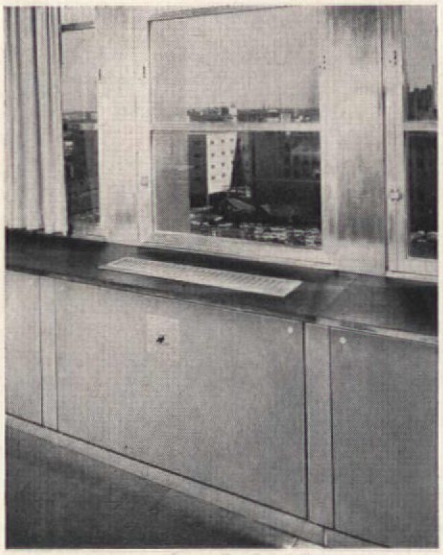


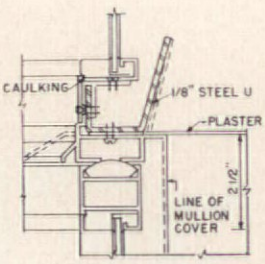
HORIZONTAL SECTION

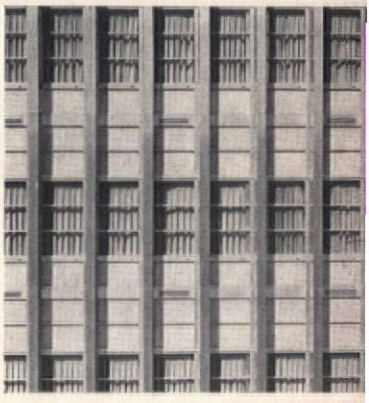


Porcelain enamel panels are held by special J-type furring strips which are attached to light-gauge steel studs. Panel joints are caulked with mastic. Studs and furring strips holding panels are shown behind diagonal wind bracing in photo at left









Porcelain enamel is employed also for covers of the individual window air conditioning units. Fresh air from aluminum intakes (photo right) is heated or cooled in window unit, then discharged through grille in slate sill. Small aluminum baffle at each window level (small sketch) catches any water seepage through casement and channels it into mullion

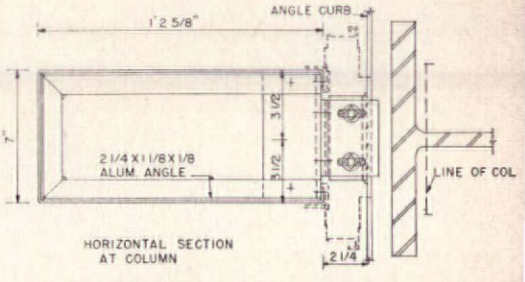
mounted on the exterior face of the building. Chilled water is distributed to the unit from two 200-ton refrigerating machines, which may be operated together or independently, and hot water is produced by two gas-fired, low-pressure steam boilers.

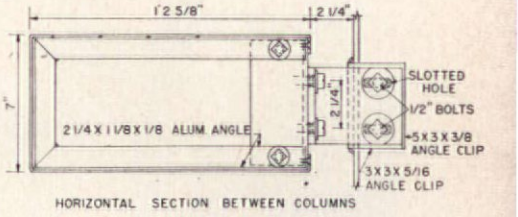
The cooled or heated air is discharged through grilles installed in the slate sills. Air temperatures from the air-conditioning units are controlled automatically by a pneumatic control system. Each building exposure is considered a zone, and the temperature of the water supplied to each zone is varied with changing exposure and heat load. In addition to separate zone control, each of the fan-coil window units has a local three-speed switch which permits some individual variance.

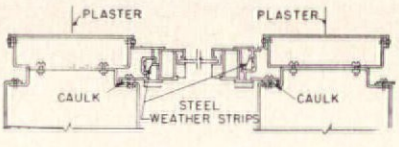
Basementless Foundation

Even with the load savings resulting from the use of lightweight aluminum and porcelain enamel, a high-capacity foundation was a requirement. Cast-in-place concrete pilings were driven to a depth of 85 ft through two secondary sand strata and into a third extremely dense sand strata offering the required bearing capacity. Each piling was designed to withstand a 50-ton loading. Groups of pilings are concentrated in areas of heaviest anticipated load.

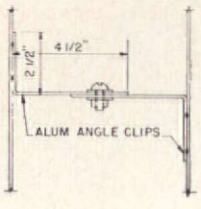
The building proper, structurally a one-piece welded steel frame, sits on top of the basementless foundation. Its combined engineering features add up to a sturdy structure that is unaffected by frequent shifts of the ground.



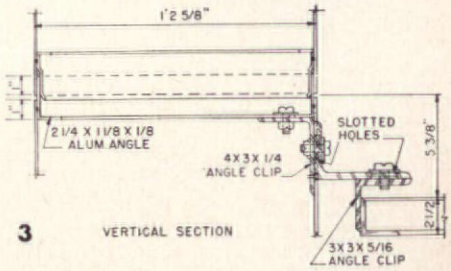




1



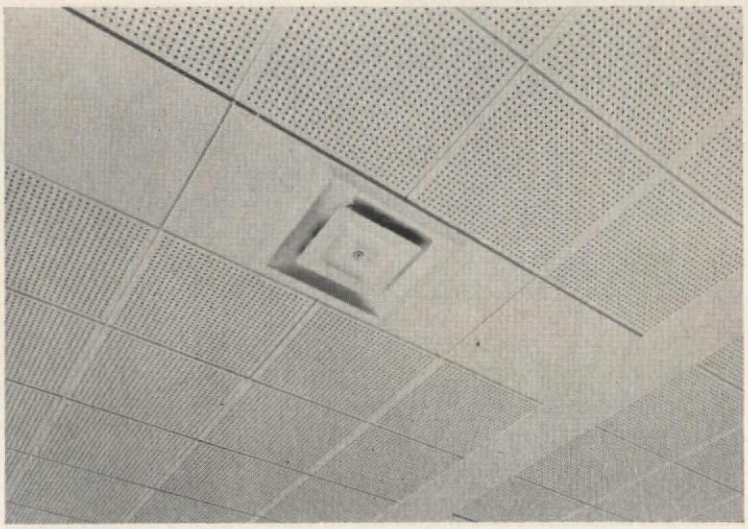
2



3 VERTICAL SECTION

(1) Windows pivot vertically about centers for washing. Stainless steel weather stripping is provided between sash and casement. (2) An aluminum mullion stiffener, set into the aluminum fin diagonally at a 45° angle, is shown in vertical section. (3) The two top drawings show bolting of fins at a column and between columns, respectively. Note that slotted boltholes are provided for expansion at each floor level. Vertical expansion of fins is allowed for by inside attachments shown in bottom vertical section. An aluminum angle fits across a ¼-in. break in the fin at each floor level and is wedged into aluminum clips on the inside wall of the fin

CEILING AIR DIFFUSER AID TO FLEXIBLE OFFICE DESIGN



BLENDING DESIGN

Diffuser panels are designed to blend with the ceiling pattern and are produced in the same sizes as ceiling tiles (12 by 24 and 12 by 48 in.). A simple tool can be inserted into the hole in the face of the panel and turned to adjust air flow through the damper. (Acousti-Line *ceiling tiles by Celotex Corp.*)

Movability is the keynote of a new air diffuser designed by Connor Engineering Corporation. Connected by special metal and plastic tubing to the air supply duct, the lightweight diffusers form an integral part of the ceiling.

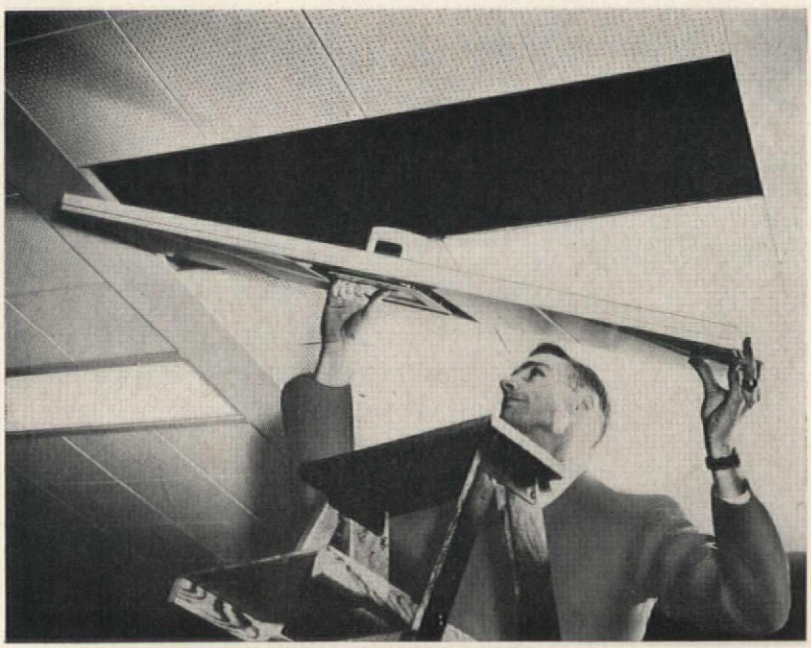
Engineered especially to fill the needs of continually changing office locations in buildings with movable wall partitions, the diffusers can be moved quickly and easily to the different ceiling locations required for the new office areas. Resting securely on a suspended framework of metal panels and channels, they can be pushed up and out by regular office help. Not only is accessibility an advantage of this diffuser as regards ease of relocation; lower maintenance costs are an important result.

The flexible pleated tubing can be turned, lengthened or shortened without materially affecting its uniform diameter. The tubing does not add to noise level, nor does it support combustion.

Designed to blend with ceiling patterns, the diffuser has a single orifice and a self-contained, concealed damper. The damper can be controlled from the floor by means of a simple tool, very much like a window pole, which fits into the face of the panel. Thus, not only can the diffuser location be varied, but also the amount of warm or cool air emitted in that location. Regardless of the amount of air discharged, however, the diffusion pattern, according to the manufacturer, remains constant — an important factor with variable cooling loads.

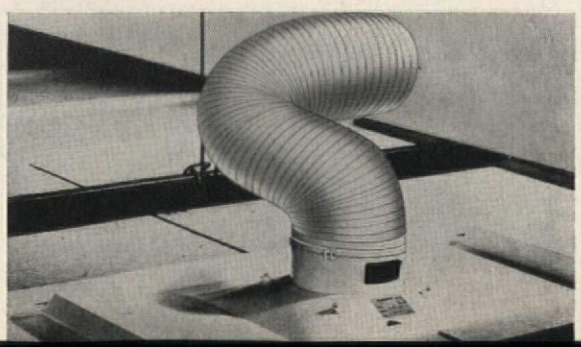
Available in 4-, 5- and 6-in. neck sizes, the diffuser can be used for both conventional and high-pressure types of air conditioning. Capacities are from 75 to 175 cfm. *Connor Engineering Corp., Danbury, Conn.*

(*More products on page 218*)



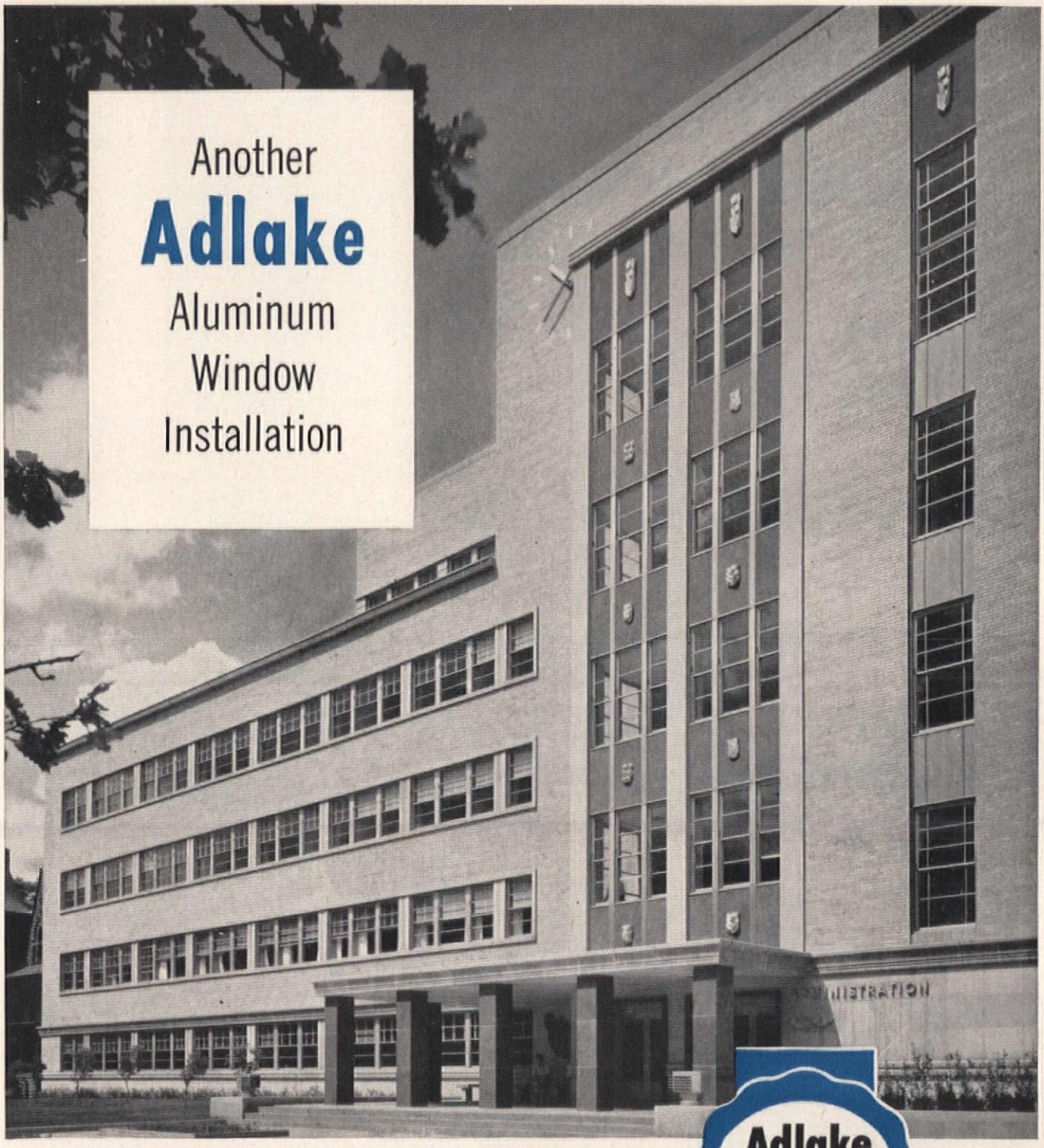
EASY TO INSTALL

The lightweight panels are easy to install and to remove. Ducts and tubing are instantly accessible



FLEXIBLE TUBING

"Inside story" shows maneuverability of flexible, pleated tubing above ceiling level



Administration Building, University of Michigan—Ann Arbor, Harley, Ellington & Day—Architects, Bryant & Detwiler—General Contractors

- Minimum air infiltration
- Finger-tip control
- No painting or maintenance
- No warp, rot, rattle, stick or swell
- Wool woven-pile weather stripping and exclusive patented serrated guides

Adlake PROVEN QUALITY WINDOW

This window meets or exceeds all quality industry specifications for aluminum windows.
THE Adams & Westlake COMPANY Elkhart, Indiana

97th year of serving the transportation and building industries

The Adams & Westlake Company

Established 1857 • ELKHART, INDIANA • Chicago • New York

Also Manufacturers of ADLAKE Mercury Relays and ADLAKE Equipment for the Transportation Industry

HOME OF MR. AND MRS. ALLEN SILVERSTINE, HIGHLAND PARK, ILL.
ARCHITECT: Bertram A. Weber, Chicago • GENERAL CONTRACTOR: Albert Bork, Highland Park • PAINTING CONTRACTOR: Triangle Decorating Company, Chicago

Photos, Hedrich - Blessing, Chicago

. . . to Painting as You Like It

On walls and woodwork — on floors and exterior trim — Pratt & Lambert paints, varnishes, enamels and stains were used throughout this distinctive residence.

You, too, can depend on Pratt & Lambert for that fine finishing touch, and for authoritative colors, which will complement your creative skill on any project. You can likewise count on P&L Products for year-after-year durability that will really please your clients, whether the work be residential or institutional; commercial or industrial.

But that is only half the answer to painting as you like it. The other half is found in the assistance your P&L Architectural Representative is ready to render whenever you call on him — assistance with painting specifications, color planning and sample panels. Write or phone your nearest Pratt & Lambert Architectural Service Department.

REGISTERED P&L TRADE MARK

PRATT & LAMBERT-INC.

Paint and Varnish Makers

NEW YORK • BUFFALO • CHICAGO • FORT ERIE, ONTARIO

NORTH AMERICAN BUILDING STONES — 7

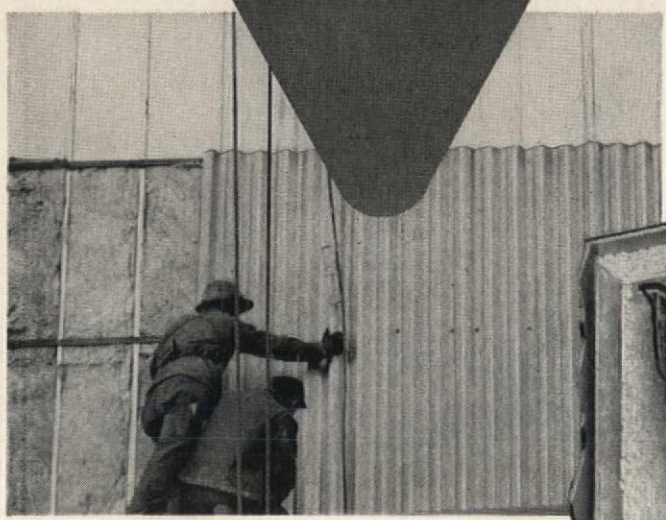
Presented through the cooperation of the International Cut Stone Contractors' and Quarrymen's Association

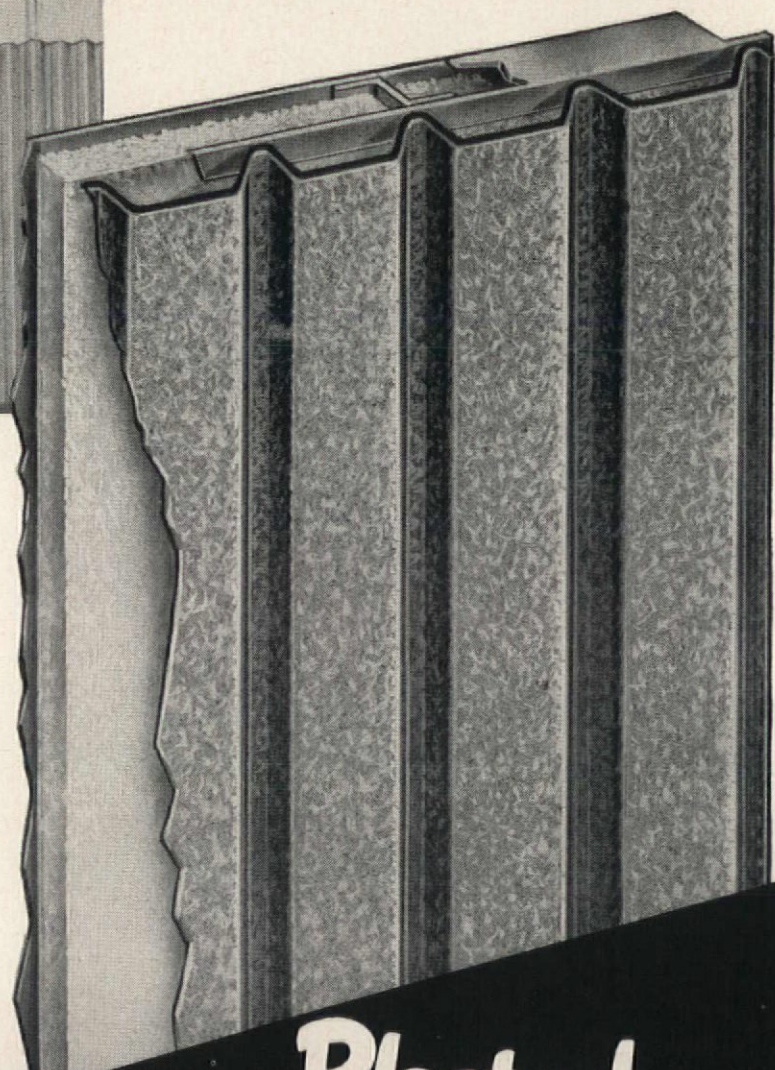
INDEX OF 62 BUILDING STONES—Sheet 2-B (Horizontal columns continued from sheet 2-A, page 229, April TSS)

	PHYSICAL TESTS	STRENGTH	WEIGHT	FURNISHED AS	SURFACE COVERAGE	OTHER FACTS
9	Absorption of Moisture 2.10% Freezing and thawing — 100%	Crushing Strength — load parallel to rift — 20,400 lbs per sq in. Load perpendicular to rift — 16,800 lbs per sq in.	170 lbs per cu ft	Splitface. Heights 2″–6″ Lengths 1′–4′	38 sq ft	
10	Absorption of Moisture — 4.4% in 25 hours	Crushing Strength — 4,553 lbs per sq in.	145 lbs per cu ft	Dimensional; Splitface.	100 sq ft in 2.3 tons Splitface	See also Veined Gray Rockrange, Rockwood
11	Tests Not Completed	Tests Not Completed	Tests Not Completed	Dimensional; Ledgestone; Flagging. Heights: 1″–8″ Lengths: 12″–48″	42 sq ft per ton	
12	Acid Resistant Moisture Resistance meets all requirements of the U. S. Bureau of Reclamation for facing storage reservoirs and dams. Tests Not Completed	Crushing Strength—64,000 lbs per sq in.	13½ lbs per sq ft—1 in. thick	Dimensional; Splitface; Ledgestone. All Heights and Lengths (1′–3′; 10′–12′ in dimensional stone)	40 sq ft per ton	Flagstones from 60 to 80 sq ft of surface area are obtained from this quarry.
13	Tests Not Completed	Tests Not Completed	140 lbs per cu ft	Dimensional; Splitface; Ledge. Height: 1″–12″ Length: 1′–14′ random	Flagstone (sheets) 120 sq ft per ton, Splitface 4″ strips 40 sq ft per ton	

This building is
LIFE
conditioned with **Plasteel**

PROTECTED METAL
INSULATED PANELS

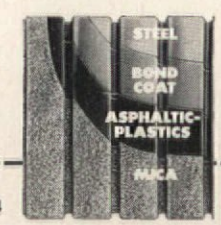




No other insulated panel can give you the protection and thermal properties of LIFE-conditioned Plasteel. Panels available in lengths up to 25 feet for field assembly—with interior wall-sheets of steel, a layer of glass fibre insulation and exterior wall of protected metal with Mica coating. Plasteel cuts heat loss, prevents harmful effects from condensation and effectively insulates against outside heat in summer. Result: closer temperature and humidity control.

★ROOFING ★SIDING ★ROOF DECK

Tested and classified by Factory Mutual Laboratories and Underwriters' Laboratories. See Sweet's File.



MICA makes the difference.

PLASTEEL PRODUCTS CORPORATION 5-54
WASHINGTON, PENNSYLVANIA

☐ *Please send details on Insulated Panels.*
☐ *Please send new Engineer's Handbook.*

*Company Name*_____

*Attention of*_____
Title

*Address*_____

*City*_____ *State*_____

Plasteel
PRODUCTS CORPORATION
Office and Plant WASHINGTON, PA.

Sales Offices in All principal cities

Contact your nearest Plasteel representative before you specify your next Insulated Panels—Roof Deck—Roofing or Siding. Or, mail coupon for details.

NORTH AMERICAN BUILDING STONES—8

Presented through the cooperation of the International Cut Stone Contractors' and Quarrymen's Association

INDEX OF 62 BUILDING STONES—Sheet 3-A (Horizontal columns continued on sheet 3-B to be published in a later issue)

	NAME OF STONE	COMPANY NAME	QUARRY LOCATION	GEOLOGICAL DESIGNATION	TEXTURE	COLOR	CHEMICAL COMPOSITION
14	Conco Lannon	Conco Building Products, Inc.	Lannon, Wis.	Dolomitic Limestone	Fine-grained	Ivory and Gray; Bed Face Color; Buff	*North South Deep* Silicon Dioxide 7.04 5.06 6.98 Aluminum Oxide 0.39 0.34 0.30 Sodium Oxide 0.19 0.17 0.15 Potassium Oxide 0.12 0.14 0.12 Calcium Oxide 28.58 29.06 28.72 Magnesium Oxide 19.29 19.90 19.35 Iron Oxide 0.52 0.46 0.44 Carbon Dioxide 43.54 44.45 43.60
15	Cordova Cream	Texas Quarries, Inc.	Austin, Tex.	Oolitic Limestone	Fine, close grain	Cream	Silica..... 0.32% Iron and Aluminum Oxides..... 0.38% Calcium Oxide... 55.88% Sulphuric Anhydride..... 0.16% Loss of Ignition... 43.75%
16	Cordova Travertone	This is the transitional stone deposit between Cordova Cream and Cordova Shell and may be judged by the facts developed on Cream and Shell					
17	Cordova Shell				Shelly	Light Golden	Silica..... 0.25% Iron and Aluminum Oxides..... 0.42% Calcium Oxide... 56.08% Sulphuric Anhydride..... 0.13% Loss of Ignition... 43.88%

NOTE: Pertinent figures are listed for three grain variations of Conco Lannon stone: North, South, Deep.

2 Miles of Stores Standardize on Janitrol Unit Heaters

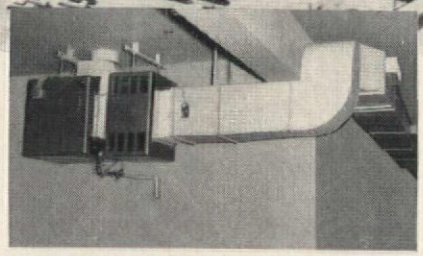
Mr. Irving Berger (standing) and Mr. Gilbert Tilles, leaders in shopping center design and construction, check plans for new project.

Since 1946 Berger & Tilles have completed 12 shopping centers to serve Long Island residents. These projects total 220 stores ranging from super-markets to gift shops . . . if fronted on one highway, they would comprise two continuous miles of stores.

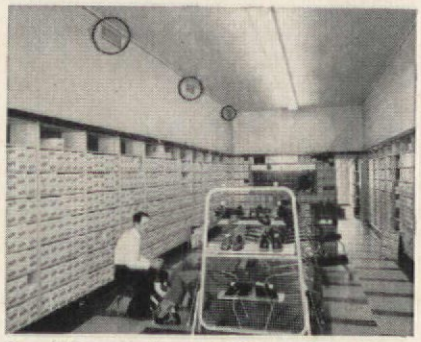
When asked about his preference for Janitrol gas-fired equipment, Mr. Berger stated, "Over a twelve year period renters and store operators have experienced trouble-free service, high heating efficiency and eliminated their maintenance problems."

Whether you plan to heat a store, warehouse, or industrial plant of any size or type, Janitrol Unit Heaters using any type gas including LP. can lower initial installation costs and assure your clients dependable performance.

Write today for "Businessman's Blue Book for Better Heating" for information on unit heater performance and best installation methods.



Blower type Janitrol unit designed for efficient heat distribution through duct system. Heating Eng. M. Prop. Htg. Cont. Metropolitan Sheet Metal Co., Elmhurst, L. I.



One of 25 stores in Cherrywood Shopping Center (shown in aerial photo) Wantagh, L. I. Warm air delivery registers are circled in photo above.

®Janitrol

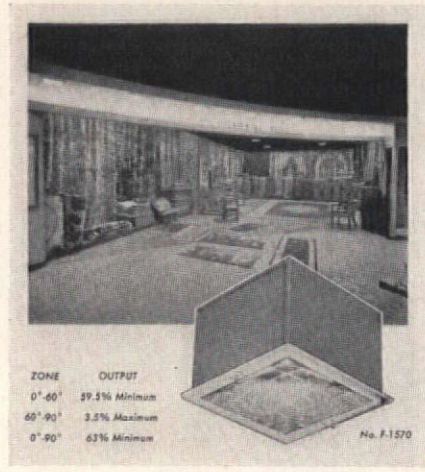
GAS-FIRED UNIT HEATERS

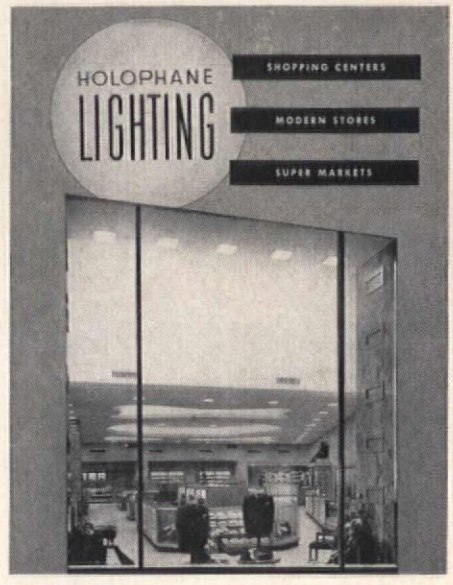
SURFACE COMBUSTION CORPORATION, TOLEDO, OHIO

Also makers of Surface Industrial Furnaces and Kathabar Humidity Conditioning

OFFICE LITERATURE

LIGHTING FOR SHOPPING CENTERS





Lighting for effective rug display is illustrated in section of page from Lighting Shopping Centers. *Cover shown at right*

Lighting Shopping Centers is a comprehensive guide containing information on lighting shopping centers, stores and supermarkets with incandescent or fluorescent lighting — recessed, suspended, surface attached, concealed in coves or on "floating clouds." There are also suggestions for relighting where present facilities are inadequate. The booklet, well illustrated with store installation photographs, layout plans and numerous diagrams, devotes several pages to exterior lighting for parking courts, service yards and the mall. A section on lighting fundamentals explains the manner of determining lighting requirements. 80 pp, illus. *Holophane Co., Inc., 342 Madison Ave., New York 17, N. Y.*

WOODWORKING GUIDE

The Architectural Woodwork Institute has published a brochure, *Architectural Woodwork, Millwork A.I.A. File No. 19-E* as a general introduction in a series of brochures that will be issued bimonthly to architects. Each brochure will be devoted to a separate element of architectural woodwork such as "Paneling," "Cabinet Work," "Doors," "Window," etc. This brochure deals with "How to Counteract the Inevitable but Reversible Movement of Wood in Buildings." *Architectural Woodwork Institute, 332 South Michigan Ave., Chicago 4, Ill.*

SWIMMING POOL DESIGN

Those interested in building swimming pools will find ideas on basic planning, pool shapes, lounging areas, wading pools and bath houses in *Trends in Swimming Pool Design*. This booklet covers various types of construction; modern trends in pool lighting; color in the pool; data on filtering, recirculating and chlorinating systems; and the newest developments in pool fittings and accessories. 20 pp, illus., *Elgin-Refinite, Swimming Pool Department, Elgin, Ill.*

* Other product information in Sweet's Architectural File, 1953.

* PLANNED LIGHTING

Bulletin A, issued by the Pittsburgh Reflector Co., tells the story of planned lighting. It covers the essentials of good lighting, indicates the recommended illuminating levels of all types of interior installations, explains the difference between fluorescent and incandescent light sources and outlines the procedure for selecting the proper light source, as well as the proper equipment, for each particular job.

Another section of the Bulletin covers the services offered to lighting equipment users and specifiers by the company, together with an outline of the designing and production procedures followed in the company plant to manufacture silver-mirrored reflectors and other equipment. 8 pp, illus., *Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh 22, Pa.*

FURNITURE PRICE LIST

Knoll Associates have put out a price list of their chairs, tables, chests, cabinets, cabinet accessories, desks, beds, lamps and letter trays. In addition to the list price the booklet includes a description of the pieces, specifications, size, delivery charge — and, for the chairs, yardage required for covering. 25 pp. *Knoll Assoc., Inc., 575 Madison Avenue, New York 22, N. Y.*

* PRESSURE TREATING STRUCTURAL WOOD

Baxco Chemonited Forest Products A.I.A. File No. 19a3 tells of the advantages of pressure treating structural wood with chemical preservatives. Examples are given showing the use of the product for industrial use, home building, farm, marine, road and highway construction. 32 pp, illus. *J. H. Baxter and Co., 200 Bush St., San Francisco, Calif.*

* RESTROOM FACILITIES

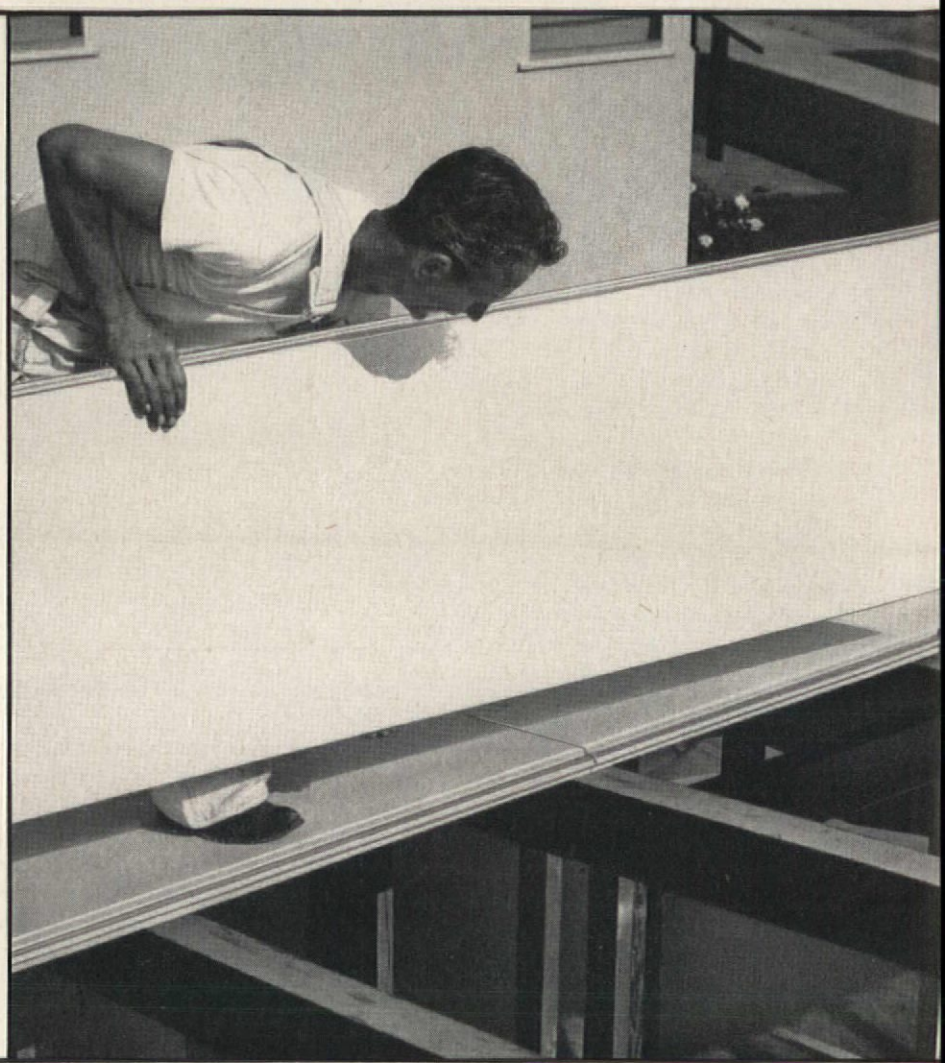
Practical aid in the selection of modern restroom and shower facilities is provided in the *Sanymetal Catalog No. 91, A.I.A. 35-H-6*. The catalog contains descriptions and illustrations in color of the complete line of Sanymetal toilet compartments, shower stalls and dressing rooms, supplemented with detailed engineering data and architectural specifications. A selection chart enables readers to determine quickly the types of units that will best serve their needs. This chart is accompanied by color chips of the 22 available colors in "Porcena," a vitreous porcelain on steel, and "Tenac," synthetic enamel on galvanized, Bonderized steel. The catalog also illustrates Sanymetal Hospital Cubicles. 20 pp, illus. *Sanymetal Products Co., Inc., 1705 Urbana Rd., Cleveland 12, Ohio.*

(*Continued on page 270*)

Insulite combines Insulation and ...in a single money

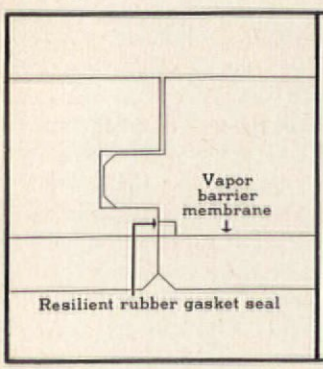
New 3 in 1 Insulite Roof Deck saves up to $300 per M sq. ft. on exposed-beam ceiling jobs in any climate*

Exclusive vapor barrier protects against condensation within the unit



1. It's Roof Deck . . . Two by eight foot unit cuts application time as much as 45%. Only one material to handle. New Insulite Roof Deck eliminates need for separate roof board, insulation, lath and plaster and ceiling finishing. Roof Deck can save 12 man-hours per 1000 sq. ft. of surface compared with 2" x 6" D&M roof sheathing.

**Why it can be used in any climate*

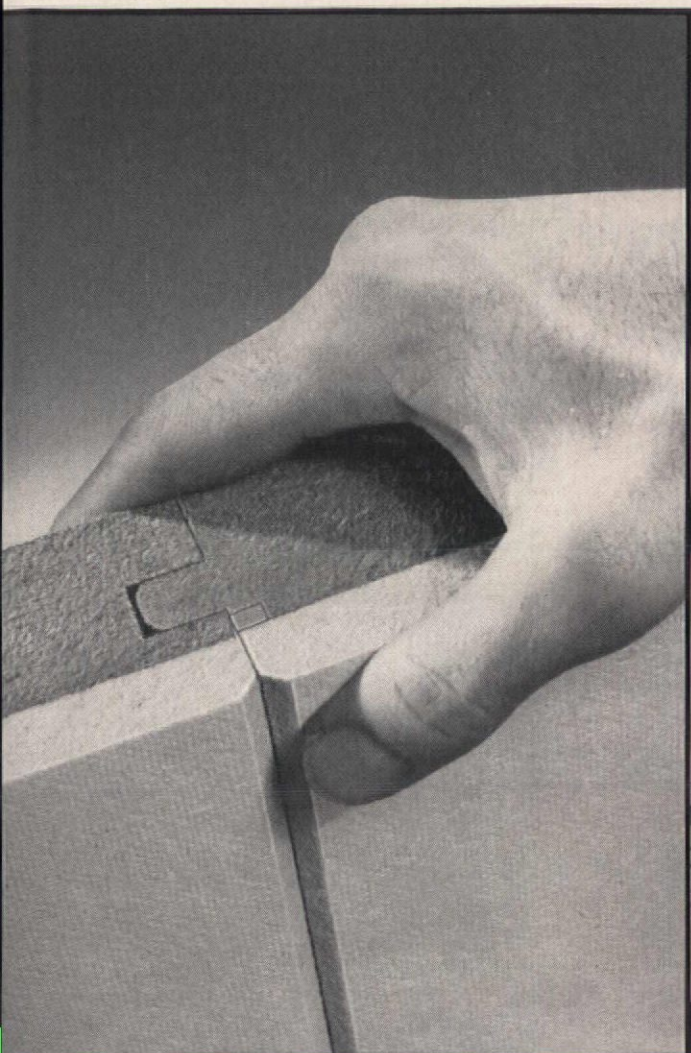


Exclusive Vapor Barrier protects against condensation within the deck in any climate. Continuous vapor barrier combines a membrane laminated into each unit, plus a rubber gasket that seals carefully machined T & G joints. (Also available without vapor barrier for use in moderate climates.)

Insulite Roof Deck saves money, speeds completions on jobs like these . . .

Homes Motels Schools Restaurants

Roof deck, Finished ceiling -saving product!



2. It's Insulation... No need for other insulation. Two-inch Roof Deck is comparable to 2" wood deck plus 1" fiberboard insulation and meets F.H.A. heat loss requirements for roof and ceiling construction. Absorbs sound better than wood or plaster . . . makes homes quieter and more livable. Exclusive vapor barrier protects against condensation within the unit in any climate.

3. And Finished Ceiling. The underside of Insulite Roof Deck is finished with a white flame-resistant surface at the factory. Simply lay Roof Deck over prefinished beams and the ceiling is done. No need to plaster, paint, stain or wax. Reduces labor and material costs. Insulite Roof Deck is available in 2' x 8' units, 1½", 2" and 3" thick with or without Insulite's exclusive vapor barrier.

Send for complete information now! Actual on-the-job pictures and construction details show how to use new Insulite Roof Deck to build better for less. Write Insulite, Minneapolis 2, Minnesota.

Build and insulate with double-duty

INSULITE

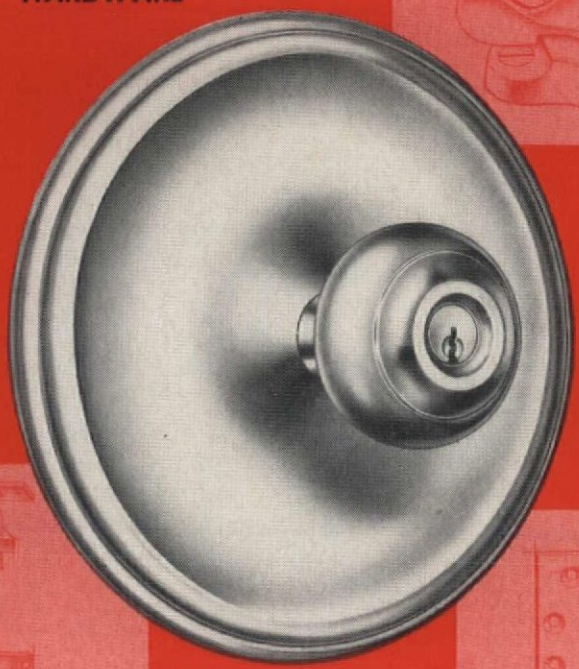
The original structural insulation board

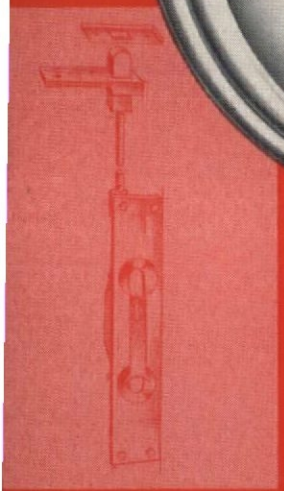
INSULITE DIVISION, Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota

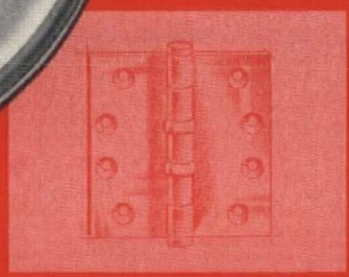
INSULITE IS A REGISTERED TRADE MARK

Identical Finishes...

RUSSWIN
BUILDERS' HARDWARE







. . . a feature of outstanding architecture

Among the reasons given for the selection of Russwin Builders' Hardware is its uniform finishes . . . within a single line of products and throughout the complete line. The overall matching effect adds finesse to the appearance of any building.

The finishing of builders' hardware occupies an important place in the production of Russwin Builders' Hardware. Even though methods and equipment have changed over the years, accumulated knowledge and experience help assure the maintenance of high standards associated with the Russwin name. Uniform finish is one of the advantages gained by specifying Russwin throughout. Russell & Erwin Division, The American Hardware Corporation, New Britain, Conn.

SINCE 1839
RUSSWIN®
DISTINCTIVE HARDWARE

Be *SURE* to satisfy . . . specify *RUSSWIN* throughout

"400" Closers | Overhead Door Holders | Miscellaneous Hardware | "Ten Strike" Cylinder Locks

AEH PRODUCTS

(*Continued from page 208*)

VENTS FOR DAYLIGHT AND VENTILATION

The *Wascolite Ventdome*, a plastic and aluminum roof vent with motor-operated air exhaust, provides both top-lighting and ventilation through one roof opening.

Formed from a single sheet of acrylic plastic under pressure, the smooth-surfaced dome is shatter-resistant and lightweight, yet has a load-supporting capacity greater than the usually required 40 psf. Said to be virtually maintenance-free, the domes are available in white translucent and clear colorless plastic. With flanges resting between neoprene cork gaskets and protected by the aluminum supporting frame, the dome can expand and contract under wide temperature ranges.

Looking through clear plastic dome of vent shows air-intake louver

The curb frame, with double walls of extruded aluminum insulated with Fiberglas, has a self-contained condensation and seepage gutter, with a slope for positive drainage to the roof. The outside curb skin is both a structural and self-flashing member.

From one to four motor-operated built-in air exhausts are supplied in the curb frames. Light-duty exhausts for intermittent use and heavy-duty exhausts for continuous use are available. Both types are protected by insulated weather doors that keep out snow, rain, dust, etc. The motor-operated doors open when the exhaust is turned on and close when it is turned off.

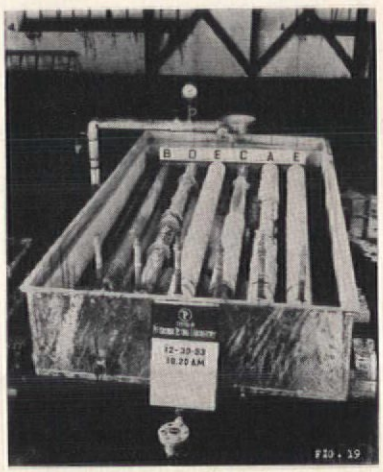
The Ventdome can be secured to the roof deck by means of an extended roof flange. *Wasco Flashing Company, 89 Fawcett St., Cambridge 38, Mass.*

AEH PRODUCTS

WATER-RESISTANT INSULATION

Development of a new water-resistant insulation has been announced by the Magnesia Insulation Manufacturers Association, representing the producers of 85% Magnesia insulation and related products. The new form of 85% Magnesia for hot piping and equipment offers a solution to the important problem of insulation damage resulting from severe water exposures.

Exhaustive tests by an independent laboratory, the Association reports, indicate that immersion in boiling water for 378 hours with intermittent drying on hot pipes caused only slight roughening of the insulation surface with no loss of insulating values. Following the tests, the new product was still in serviceable condition.



After 30 cycles of boiling water immersion and alternate drying, plus 168 hr of continuous immersion, water-resistant 85% Magnesia (pipes labeled E) shows only slight roughening of surface

Said to be especially useful for underground pipelines subject to flooding, process equipment and piping requiring hosing or washing down, the new insulating material was developed under the sponsorship of the Technical Committee of MIMA.

For all practical purposes, the water-repellent additive in the new material does not affect the conductivity, density or other vital properties of the insulation. However, the Association advises that the new material will be offered only where severe moisture problems exist or where specified by the user. *The Magnesia Insulation Manufacturers Association, 1317 F Street, N. W., Washington 4, D. C.*

(*Continued on page 222*)

A Strong Case for Quality

The "Uniloc" Case that holds parts in perfect alignment

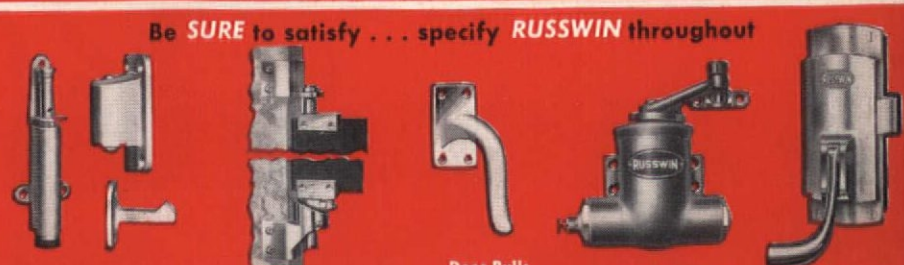
RUSSWIN®
"Uniloc"

"Uniloc" available in Mono design, all popular functions

Like the heavy duty Russwin Unit Lock, the design of the "Uniloc" is based on a principle of building up into a fully assembled unit one part on another with every part in precise relationship to the others. This relationship is assured by a rugged one-piece frame . . . the main feature of the case. The frame of cast brass, bronze or aluminum holds precision-made parts in perfect alignment so that friction between moving parts is almost non-existent. Since the "Uniloc" is not disassembled when installed, there is no chance of misaligning parts.

Other "Uniloc" quality features include cast knobs and plates, extruded brass pin tumbler locking mechanism, pivoted swinging-type latch bolts. Installation requires only a simple notch in stile and two bolt holes. Write for "Uniloc" Catalog. Russell & Erwin Division, The American Hardware Corporation, New Britain, Conn.

Be *SURE* to satisfy . . . specify *RUSSWIN* throughout



Door Stops and Holders | Gravity Pivot Hinges | Door Pulls, Push Plates, etc. | Surface Door Closers | Fire Exit Bolts

NOW! the new Modine

A modern room unit for cooling and heating hotels, apartments, motels, offices, hospitals, schools, homes. Ideal for new construction and modernization.

THE new Modine AIRditioner* provides cooling with chilled water, heating with hot water . . . filters, dehumidifies, circulates and introduces fresh outside air. All functions are subject to individual room control. Here is healthful summer-winter comfort for multi-room installations within reach of the most modest air conditioning budget.

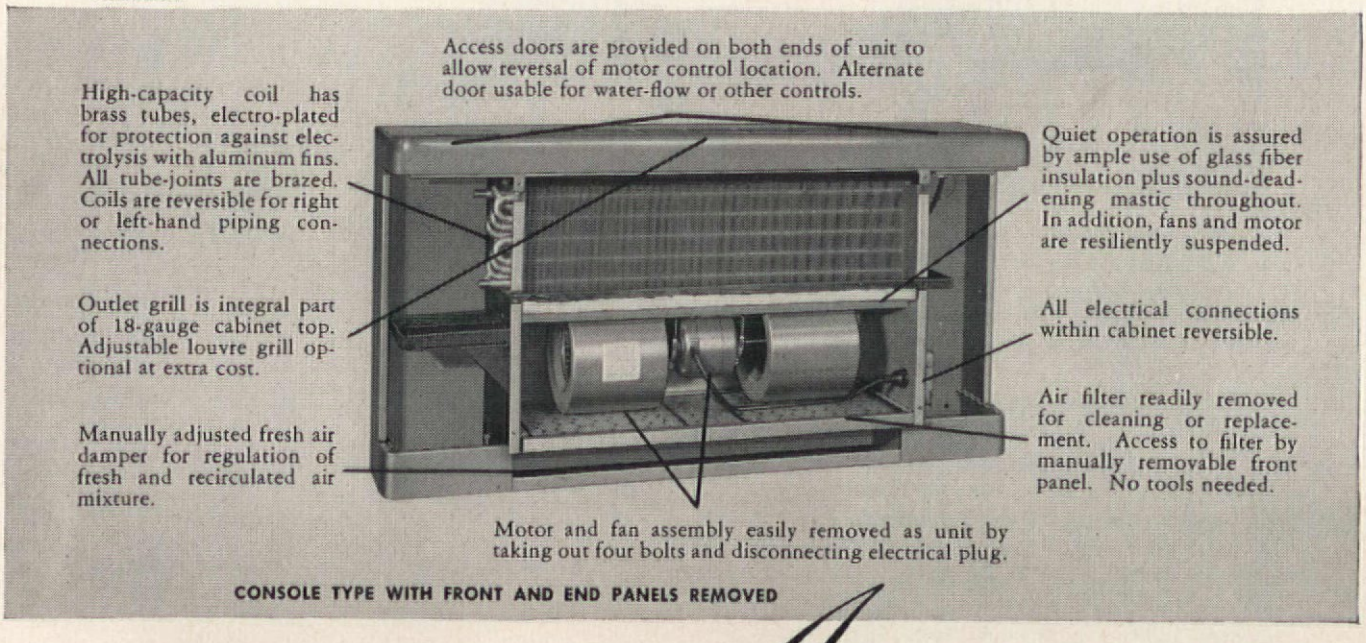
Modine AIRditioner design assures excellent performance on cooling or heating plus unusually quiet operation. Four-speed motor control provides maximum flexibility in meeting comfort requirements.

Choose from four types: The beautiful Console (illustrated) for exposed or partially recessed installation . . . the Concealed . . . and the Overhead types with and without casings. Each type is available in three sizes rated at 2/3, 1-1/2 and 2 tons of refrigeration (220, 440 and 640 cfm respectively).

Distinctive appearance and versatility are combined in the Console type styled by Jean Otis Reinecke, nationally known designer. This unit may be installed against a wall—or recessed to a depth of 5 inches, leaving less than 6 inches exposed in the room. Use of square edges at junctions of top and sides eliminates need for cutting rounded contours in wall recess . . . or preparing specially formed trim strips. Square edges blend gracefully into rounded corners in forward part of top.

Modine AIRditioners are Parker-Bonderized and finished in a semi-gloss Marine Green primer selected for high resistance to humidity. The factory finish is so attractive that further decorative treatment will frequently be unnecessary.

*Trademark

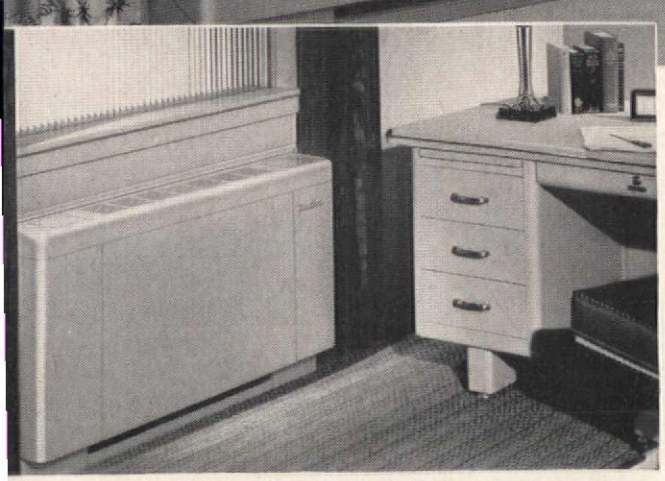


CONSOLE TYPE WITH FRONT AND END PANELS REMOVED

Modine AIRditioners

AIRditioner

(Above) Console type is installed against finished wall. A ⅜-in. thick sponge rubber strip around perimeter of back serves as wall seal and as plenum for fresh air inlet. All piping and wiring are concealed in enclosure.



(Left) Because all rear corners are square, AIRditioner can be recessed faster, at lower cost. With over-all depth less than 11 in. and up to 5 in. of recessing permissible, AIRditioner takes far less floor space.

Concealed and Overhead Types

Other AIRditioners available include: Concealed type for built-in installation behind a finished wall. Overhead type with casing for exposed ceiling installation. Overhead type without casing for use with ducts above a false ceiling or in a closet.

MODINE MANUFACTURING COMPANY
1510 DeKoven Ave., Racine, Wis.

Please send me a free copy of bulletin describing the new Modine AIRditioner.

Name .....

Position .....

Firm .....

Address .....

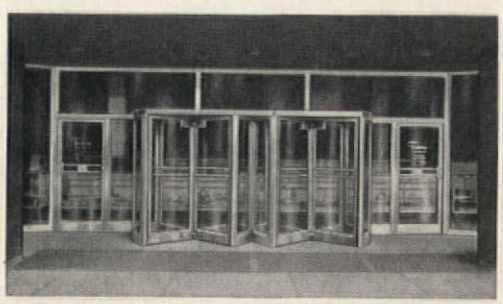
City ..... Zn ..... State .....

A-1223

. . . NEW AND HELPFUL DATA ON

modern "PACKAGED" entrances

HERE is a brand-new data file that will prove mighty helpful in your preliminary planning. In it you will find detailed entrance information and specifications . . . scale drawings and actual photos of installations . . . facts, figures and descriptions of special features. In short, here is your guide to the newest and best in complete building entrances: of "always open — always closed" Revolving Doors; of International-engineered Swing Doors; or of a combination of both in a broad range of materials. Your personal copy of this valuable reference book is being reserved for you. Mail the above coupon *now*.



International Van-Kannel Revolving Door Entrance to the smartly modern Fedway Store at Amarillo, Texas.

INTERNATIONAL
ALWAYS OPEN — ALWAYS CLOSED
VAN-KANNEL

REVOLVING DOOR DIVISION
2002 EDGAR ST. EVANSVILLE 7, IND.

INTERNATIONAL STEEL COMPANY

A|E PRODUCTS

(*Continued from page 219*)

AUTOMATIC GAS LAUNDRY

The new gas *Duomatic* (*Model CEV*) is a combination laundry unit that dries as well as washes in one continuous automatic operation. In appearance the gas model resembles closely its electric counterpart. According to the manufacturer, the new model can wash and dry an average 8-lb mixed load in about an hour. It is operated by two simple controls and a water temperature selector switch which governs the *Magic Heater*.

Space-saving gas Duomatic washes and dries in one continuous operation

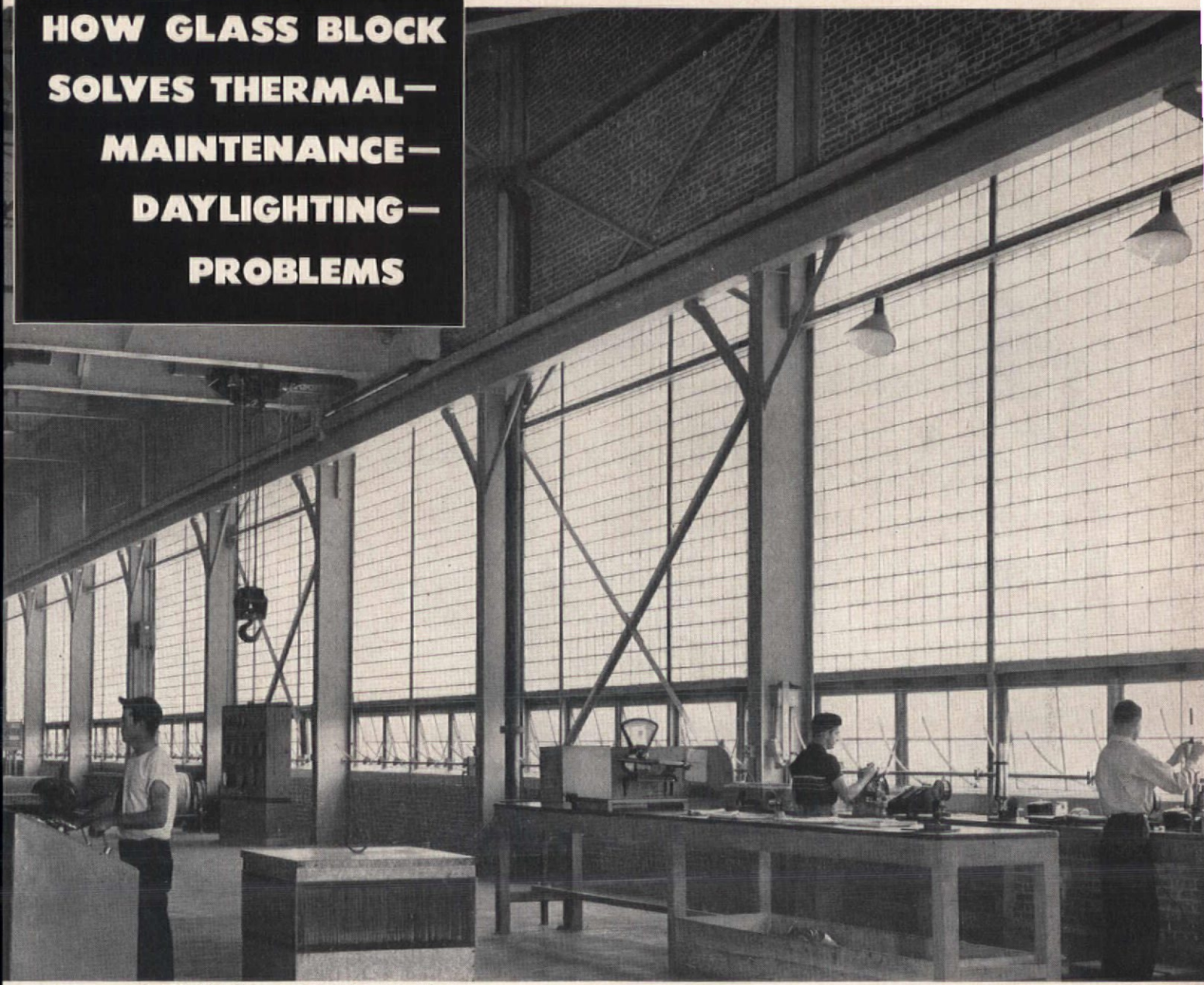
The Duomatic uses the patented *Bendix* tumble-action washing method. An optional automatic speed soak period can precede the washing. The wash period is followed by three alternate rinse and spin dry cycles. Following the last spin, the unit halts, then fluffs the clothes, preparing them for drying — which starts automatically. Room air is drawn into the unit, heated, passed through the clothes and exhausted outdoors. The unit is 36 in. wide. *Bendix Home Appliances Div., Avco Manufacturing Corp., 1329 Arlington St., Cincinnati, Ohio.*

STEEL DOOR WITH TORSION SPRING MECHANISM

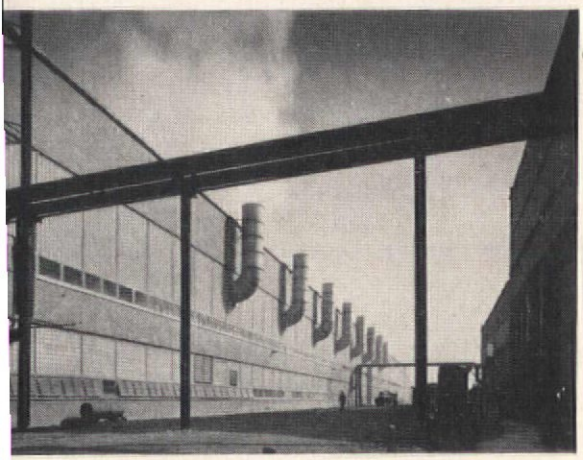
A new, upward-acting all-steel door offers the installation and operating advantages of the *Crawford Marvel-Lift Mechanism* — not previously available on steel doors. This compact mechanism is installed entirely above the door. The

(*Continued on page 226*)

HOW GLASS BLOCK SOLVES THERMAL— MAINTENANCE— DAYLIGHTING— PROBLEMS



Approximately 125,000 Owens-Illinois Light-Directing Glass Block are in the new buildings at International Paper Company's huge Moss Point, Mississippi, plant.



Glass block are laid up with regular masonry material. They are inexpensive to maintain . . . hard to break . . . can't rust or rot. Glass block are impervious to corrosive effects of chemicals.

KRAFT PAPER MANUFACTURE requires closely regulated plant temperatures and humidity levels . . . chemicals used in pulping and bleaching are highly corrosive. That combination of problems makes glass block a natural choice.

Owens-Illinois Light-Directing Glass Block permit the use of entire glass areas for the transmission of an abundance of cheerful, quality daylight into the farthest corners of plant or office. Daylight is controlled so efficiently that buildings virtually "turn with the sun" to make maximum use of free daylight from early morning to late afternoon.

Whenever you have a problem involving daylighting plus other operating considerations, be sure to investigate the many advantages of Owens-Illinois Glass Block.* For information write: Glass Block Division, Owens-Illinois, Dept. AR-5, Box 1035, Toledo 1, Ohio.

**Formerly known as INSULUX*

OWENS-ILLINOIS GLASS BLOCK
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Completely NEW Line of

Now! Wider range, exclusive new features

20 new Trane Climate Changers for any capacity, 600 to 29,000 cfm! Complete line of factory-built units for flexible application, easy installation!

Now, a brand new, more complete line of TRANE Climate Changers with an even wider range of capacities—20 new models for more flexible application.

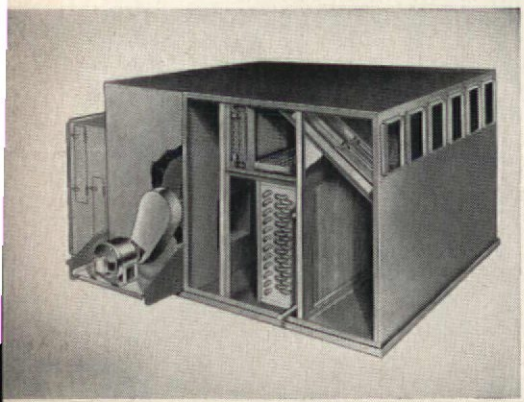
Designed for easier installation, full accessibility and less maintenance, these *new* TRANE Climate Changers are the most modern factory-built air handling units in the industry!

Wider capacity range simplifies selection. Ten sizes cover entire range of capacities from 600 to 29,000 cfm. You can select a unit with just the capacity you need for maximum system operating efficiency.

New fans are more efficient, quieter. Every fan designed especially for its unit for highest efficiency, quietest operation. Low outlet velocity—approximately 1,500 feet per minute. Climate Changers are rated by fan capacity *in the unit.*

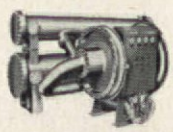
Increased design flexibility, more accessories. You get any or all of *24 practical combinations* of heating, cooling, humidification, dehumidification, ventilating and filtering. Three types of heating coils for steam or hot water—five types of cooling coils for chilled water, well water or Freon. Three types of humidifiers, three kinds of filters. Matched face-and-by-pass dampers and mixing boxes. *No other air handling unit offers such versatility!*

Installation simplified. Fan outlets, for example, are quickly reversible on job—three ways on vertical units,



6 climates from one Climate Changer! TRANE Multi-Zone Climate Changers give individual temperature control in one to six zones. Units are quality constructed. Sectional construction if desired. 1,800 to 23,400 cfm.

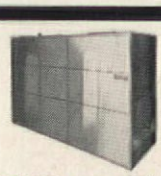
A Trane Product for Every Air Conditioning Need



CenTraVacs, Centrifugal Water Chillers 45 to 400 ton capacity.

UniTrane Room Units for air conditioning multi-room buildings.

Cold Generators, packaged water chillers, 10 to 100 tons capacity.



Self-Contained Air Conditioners from 3 to 20 tons capacity.

one source · one responsibility

TRANE

Climate Changers

MANUFACTURING ENGINEERS OF AIR CONDITIONING, HEATING, VENTILATING AND HEAT TRANSFER EQUIPMENT

The Trane Company, La Crosse, Wis. • East. Mfg. Div., Scranton, Penn.
Trane Co. of Canada, Ltd., Toronto • 90 U.S. and 14 Canadian Offices

Trane Climate Changers

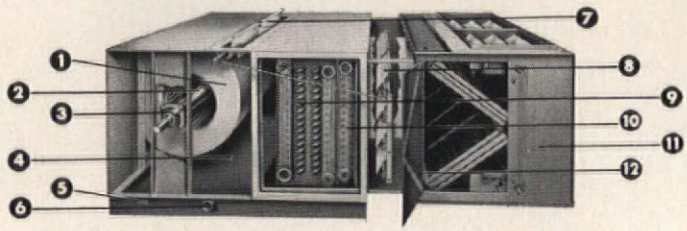
in industry's most modern air conditioner

two ways on horizontal units. Motor mount adjustable four ways. All units will clear 36″ door except sections of largest unit which will clear 40″ door.

External bearings cut maintenance time and cost. Bearings can be serviced in minutes instead of hours. All bearings are self-aligning type.

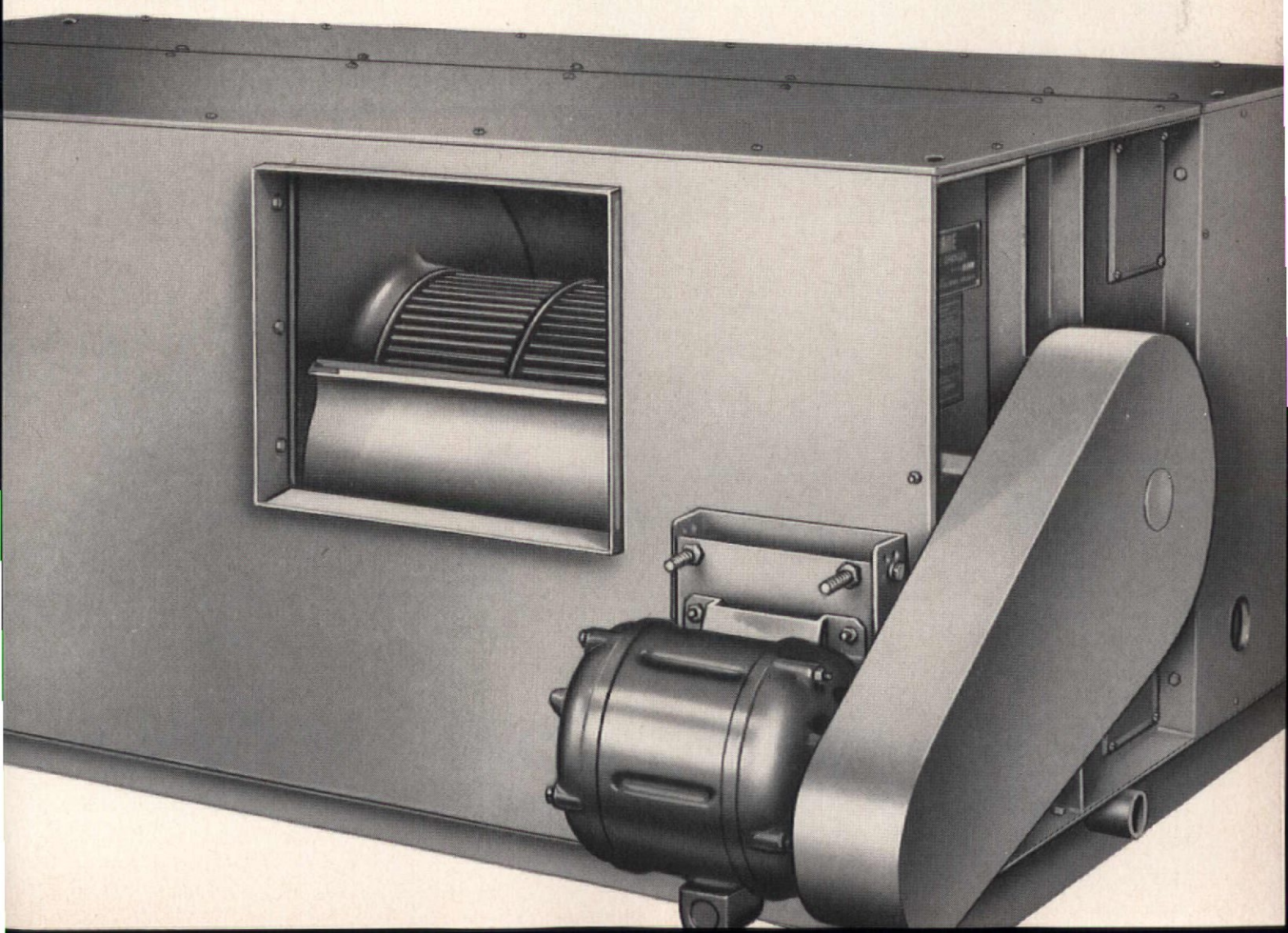
Sloping drain pan for positive drainage. Side drain connection for minimum head room. Pan under *entire* unit. From top to bottom, new TRANE Climate Changers are designed for efficiency, built for long service!

Specify TRANE Climate Changers. For complete details and roughing-in dimensions, call your TRANE Sales Office or write TRANE, La Crosse, Wis.



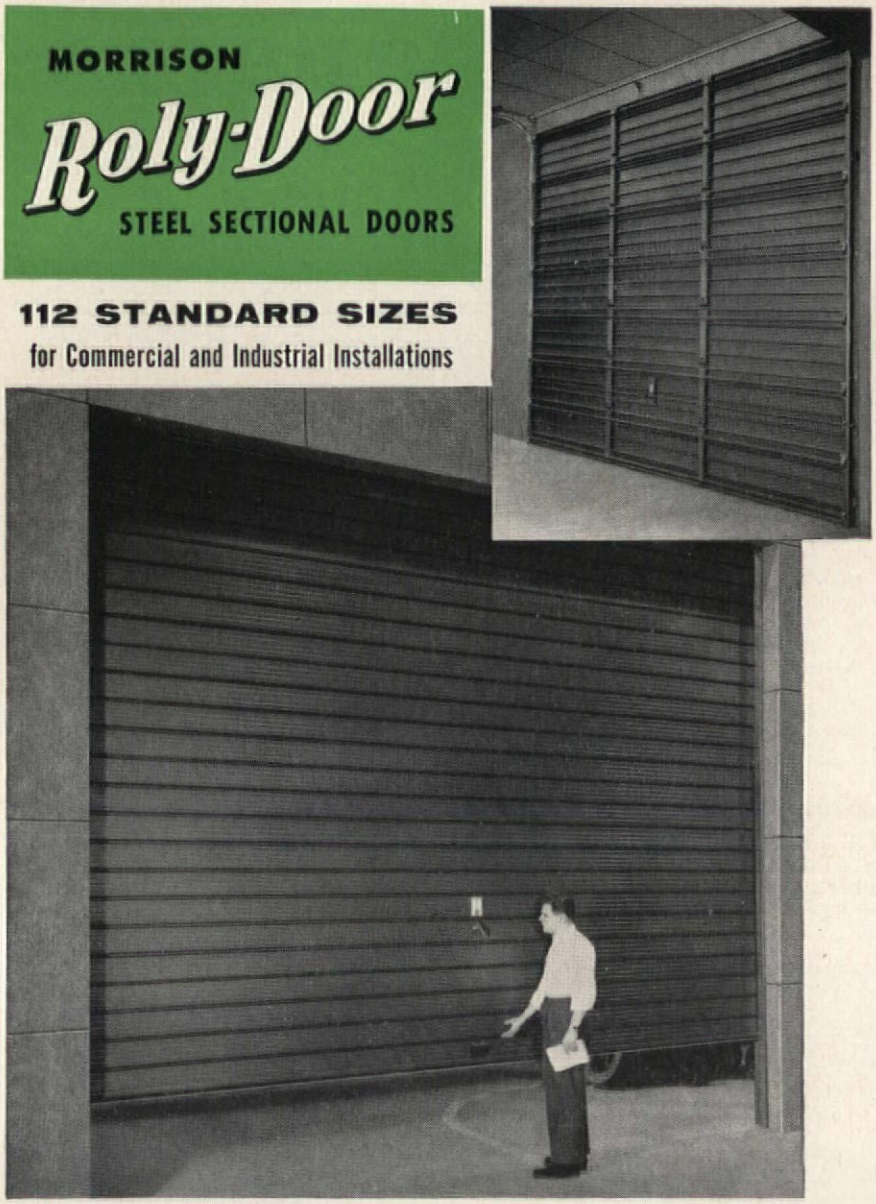
1. **Centrifugal fans** designed for unit.
2. **Fan shaft** — large diameter, solid steel.
3. **External bearings** for easier maintenance.
4. **Humidifiers** — available in three types.
5. **Sloping drain pan** — gives positive drainage.
6. **Side drain connection** — saves head room.
7. **By-pass dampers** for temperature control.
8. **Face dampers** interconnected with by-pass.
9. **Cooling coils** — water or D.E.; five types.
10. **Heating coils** — steam or hot water; three types.
11. **Mixing box** with dampers and filters.
12. **Full access** to interior of unit.

New TRANE Climate Changers with sectional construction are designed to meet close space requirements, a wide variety of capacity needs. Horizontal models (below) can be ceiling suspended or installed on platform. Vertical models are floor mounted. Fan outlets are reversible on job . . . 3 ways on vertical units, 2 ways on horizontal. Units *deliver* the capacity you select—TRANE Climate Changers are rated by fan performance *in the unit*, from 600 to 29,000 cfm.



MORRISON
Roly-Door
STEEL SECTIONAL DOORS

112 STANDARD SIZES
for Commercial and Industrial Installations



You can confidently specify Roly-Doors for every commercial or industrial building you design. Their clean, modern, distinctively simple lines blend with any style of architecture . . . their functional design ensures safe, easy, trouble-free installation and operation (manual or electrical) . . . and their all-steel construction provides a durability that defies weather and years of hard use. Available in 112 standard sizes, there's a Roly-Door for every overhead door requirement.

And, Roly-Doors cost no more than ordinary wood or metal doors for the same purpose.

WRITE TODAY for the Roly-Door Technical Data File. It will give you complete information on all Roly-Doors' unique features . . . their sectional design and construction . . . the reasons for their durability and ease of operation . . . Morrison's nation-wide sales and service organization . . . and the many other features that will enable you to fit Roly-Doors into *any* of your plans. For commercial or industrial buildings, specify Roly-Doors.

Roly-Doors come in a complete range of sizes for every residential, commercial or industrial application.

Roly-Door Division
MORRISON STEEL PRODUCTS, INC.
651 Amherst St., Buffalo 7, N. Y.
Please send me your complete Technical Data File with all the facts about Roly-Doors.

Name.....

Title.....

Firm Name.....

Street.....

City..... Zone..... State.....

In Canada, Roly-Door Distributors, Ltd., 1330 Bloor, W., Toronto 4

Also manufacturers of MOR-SUN WARM AIR FURNACES and CARRY-ALL TRUCK BODIES

AIA PRODUCTS

(Continued from page 222)

action of lowering the door stores up energy in the counter-balancing safety torsion springs which raises the door when it is opened. The torsion springs are mounted on a one-piece shaft which extends the full width of the door and which has pocket pulleys and chains mounted on each end. The lifting power of the torsion springs is transmitted to the shaft and to the pulleys which, being mounted on a single shaft, turn at uniform speed and thus raise and lower, at uniform speed, the lifting chains which are attached to brackets on the bottom corners of the door.

The door itself is a series of interlocking, box-type, built-up steel panels which can be varied in height and width to produce doors of any width up to 14 ft and any height from 7 ft 1 in., in 6 in. steps.

Individual panels are a series of pans of .036-in. rolled steel, welded to box members at the bottom and sides and within the span. Box members are .089-in. gauge steel. Inner and outer surfaces are protected by zinc chromate primer over cleaned metal, providing an ideal base for finish paint. Easy operation is assured by the dual chain hoists which permit any size door to be operated easily by one man. All hardware is heavy duty throughout and is stoutly fastened. *Crawford Marvel-Lift Mechanism, 2063–27 Hoover Rd., Detroit 5, Mich.*

VERSATILE BUILDING BLOCK

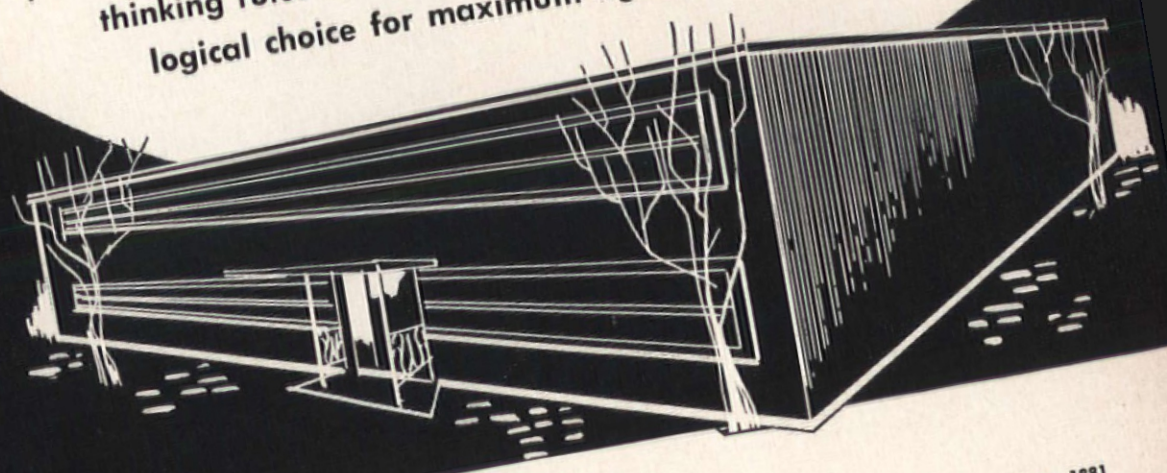
A new building block offers construction advantages by concealing wires, pipes and other utilities in ducts, while combining anchorage and clearances with styling and landscape advantages. Called *Art-ery*, this block has two opposite plain-faces; one with a wide, long groove that forms a duct when placed in the wall — the other side with a contrary straight line, cross-member arrangement. The second side can be aligned for tapping the duct space for concealed reinforcement channels for brackets and anchorage where required. This recessed side, besides offering possibilities for attractive decoration, makes space for neon lighting tubes. Art-ery blocks are available in glass, brick, thermal and sound insulation, and tile. *Arthur L. Kuhlman Industries, Bay City, Mich.*

(Continued on page 230)

Wheeler Lighting Installation
for Doelcam Corp., Boston, Mass.
Lockwood Greene Engineers, Inc.

Wheeler
LIGHTING FIXTURES
A BASIC PRODUCTION TOOL OF AMERICA'S LEADING INDUSTRIES!

Where good lighting is a "must," you'll find Wheeler on the job! In industry after industry . . where modern progressive thinking rules . . Wheeler Lighting Fixtures are the logical choice for maximum lighting efficiency!



Lighting Equipment Specialists Since 1881
DISTRIBUTED EXCLUSIVELY THROUGH ELECTRICAL WHOLESALERS

Wheeler WHEELER REFLECTOR COMPANY
275 CONGRESS STREET, BOSTON 10, MASS.

Parking in the sky... on floors made 40% lighter with Ceco-Meyer Steelform Construction...

Cafritz Building, Washington 1, D.C.
Cafritz Construction Company, builders
LeRoy L. Werner, architect
Beall & LeMay, structural engineers

Case history of CECO on-the-job performance

Planning makes entire building site income-producing. Ceco cuts dead load in floor system.

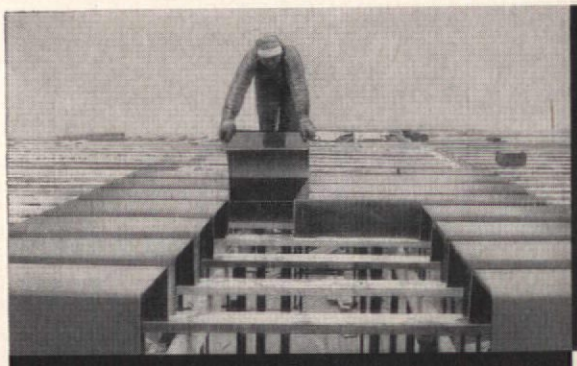
A tenant in the Cafritz Building, Washington, D.C., has no parking problems. He just drives to his floor—even if it's 10 stories up—parks, steps into the corridor—then into his office.

Morris Cafritz, building owner, has reason to be happy, too: his whole land plot produces income. When planning the building, the problem confronting him and architect LeRoy L. Werner was . . . how to eliminate areas of no income on the plot. Windowless space won't rent . . . court design means waste areas. The solution: a square building with a garage in the core, with a ramp spiraling 10 floors up. Thus layout design made all the land rent-producing. And structural design kept the floor system light and economical. This was accomplished with Ceco-Meyer Steelform Concrete Joist Construction. But let architect Werner tell the story:

"I know of no other floor framing that would have been more suitable for this job," Mr. Werner said. "Structural engineers Beall & LeMay designed panels of the building for various types of concrete systems, including joists with tile filler, beam and slab construction, and flat plate construction. They found that reinforced concrete joist construction formed with Removable Steelforms offered savings in floor weight of 40% compared to flat plate construction."

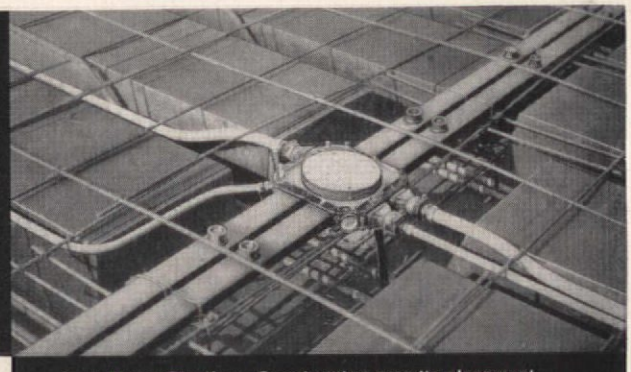
When you plan your next project call Ceco product specialists. They will help you save through product engineering. Consult Sweet's File for address. CECO

Ceco-Meyer Steelform construction saves steel, concrete, lumber and labor



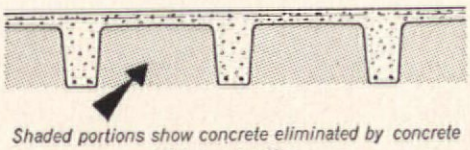
Steelforms are quickly installed on simple open wood centering. In most areas, Ceco's own erection crews are available for placing and removing the centering and forms. Cost is reduced because the same lumber and steelforms are re-used from floor to floor.

Fastest-to-erect and most economical electrified floor system



Ceco-Meyer Steelform Construction permits placement of underfloor ducts for electrical outlets spaced as needed for a modern office building. Note how the duct system is easily carried in the joist construction. Result: the most economical electrified floor.

Why Concrete Joist Construction Saves Material



Shaded portions show concrete eliminated by concrete joist construction.

In construction products **CECO ENGINEERING** *makes the big difference*

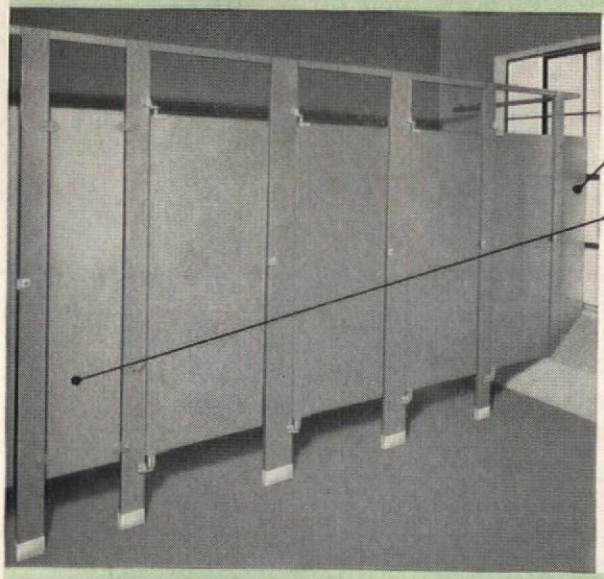
CECO STEEL PRODUCTS CORPORATION
Offices, warehouses and fabricating plants in principal cities
General Offices: 5601 West 26th Street, Chicago 50, Illinois

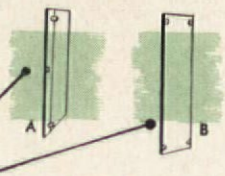
Call a

FIAT

representative on TOILET COMPARTMENT problems

There's a FIAT representative near you—available on short notice. He has the answers to specification and installation problems that may help you . . . save you time—save your clients money.





Here's how this installation problem was solved

Large concrete window base presented difficulty. Bottoms of filler panel A and end pilaster were cut to fit diagonal slope of base. Room dimension was too short for six compartments; too long for five. Filler Panel B was added, creating neat appearance.

COMPARE **FIAT** ON THESE **POINTS**

- ADAPTABILITY
- APPEARANCE
- QUALITY
- PRICE
- DELIVERY

WHEN YOU SPECIFY FIAT, YOU SPECIFY QUALITY

MADE BY FIAT FIRST IN SHOWERS

TOILET COMPARTMENTS
DRESSING COMPARTMENTS
HOSPITAL CUBICLES

All metal compartments are made of stretcher-leveled furniture steel, cold rolled or galvanized bonderized . . . laminated filler cemented in place under pressure. Hardware and connections supplied. Compartments are finished with a baked-on primer coat and two coats of baked-on enamel in a choice of eight colors.

SEE SWEET'S 24c/Fi ARCHITECTURAL

. . . for detailed compartment information and the address of your nearest FIAT representative.

FIAT METAL MANUFACTURING COMPANY

FIAT

THREE COMPLETE PLANTS—ECONOMY • CONVENIENCE • SERVICE

Long Island City 1 New York | Franklin Park, Ill. (Chicago Suburb) | Los Angeles 63, California

In Canada: FIAT COMPARTMENTS are made by Porcelain and Metal Products, Ltd., Orillia, Ontario

A-E PRODUCTS

(*Continued from page 226*)

NEW FURNITURE COLLECTION

Parzinger Originals, Inc., a designers' showroom, presents its first collection of contemporary furniture, lamps and accessories. Each piece in the collection, which includes entrance, front room, back room and bedroom furniture, has been hand-crafted, as demonstrated by details and inlays. *Parzinger Originals, Inc., 441 Madison Ave., New York 22, N. Y.*

Marble-top cocktail table in front of blue and white checked taffeta sofa

COMPATIBLE PAINT TINTS

Exactly the same shades of color can be produced in all types of paint and for all types of surface by using the new *Key-Tint Customix Color System.*

Key-Tint colors are compatible with all Keystone paints — oil, rubber, alkyd, or varnish base — according to the president of the Keystone Paint & Varnish Corp. Keyed by color number to a color card, the tints are available in three container sizes: 1-pint cans, 4-oz tubes and 1-oz tubes. The tints are simply added to any white Keystone paint or enamel to obtain the desired shade.

Said to be nonfading and limeproof, thus permitting their use on all exterior and interior finishes, the Key-Tint colors can be used for an entire building, inside and out, for a coordinated color scheme. In addition to matched colors, two-tone effects of the same color can be obtained in the same or different finishes by varying the amount of Key-Tint added to the base paint. *Keystone Paint & Varnish Corp., 75 Otsego Street, Brooklyn 31, N. Y.*

(*Continued on page 234*)

Note to ARCHITECTS who are preventing emergencies before they happen

In all parts of this country leading architects are preventing later emergencies by urging their clients to install the best possible materials. In the plumbing drainage system, and in the house sewer, this means **cast iron soil pipe and fittings.** The advertisement reproduced at the right is one of a series placed in consumer magazines by the Institute in the interest of architects who are seeking constantly to raise the standards of home sanitation.

Suppose YOUR bathroom goes out of service

Between your house and the street is a buried pipe line — your house sewer. If that fails, so does your bathroom. During the war cast iron, the time-proved material for soil pipe, was hard to get. Non-metallic substitutes were used, and frequently they fail through crushing, settling, root-penetration. Note the picture of non-metallic pipe crushed out of shape by soil settling. Today there is plenty of cast iron, and you do not have to use any substitute. Read the illustrated story of plumbing drainage in the booklet offered below. Prevent the failure of your home sanitation. If you build a new house or replace a house sewer, *always* insist on

PERMANENT CAST IRON SOIL PIPE AND FITTINGS

The Mark of Quality and Permanence

CAST IRON SOIL PIPE INSTITUTE

1627 K Street, N.W., Washington 6, D. C. Dept. BHG-4

☐ To help us prevent bathroom failure, send your 16-page booklet on Plumbing Drainage.

☐ Our _____ Club is interested in seeing your sound movie "Permanent Investment".

Name _____

No. & Street _____

City _____ Zone _____ State _____

USE PERMANENT CAST IRON SOIL PIPE AND FITTINGS

Take Advantage of These Added Helps for **ARCHITECTS**

You will want to show the Institute's sound movie "Permanent Investment." This 20-minute educational picture acquaints the public with the importance of hidden plumbing, the part of the system which is so vital to health, comfort and safety. For information on the film and a copy of the consumer folder "What You Should Know About Plumbing Drainage," use the handy coupon.

CAST IRON SOIL PIPE INSTITUTE

Dept. AR-5, 1627 K Street, N. W.
Washington 6, D. C.

☐ Send educational folder, "Plumbing Drainage."

☐ Our local _____ Club wants to see your movie, "Permanent Investment." Tell us how to arrange for use of the film, free.

Name _____

Address _____

City _____ **Zone** _____

State _____

You can solve more problems with

MOBILEX® ... *less expensively* ...

than with any other recessed lighting fixture

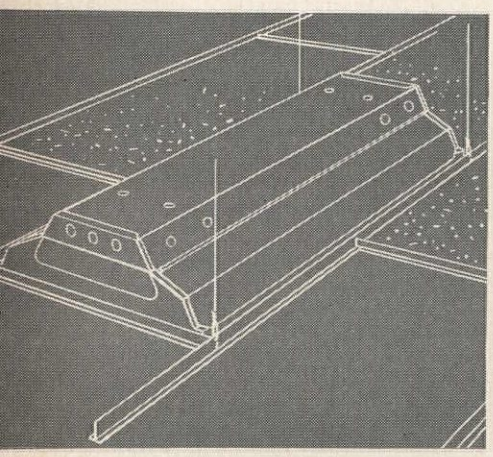
How many times in your experience have you wanted to use the good design advantages of recessed lighting—only to see your plans go by the boards because over-all ceiling costs got out of line?

You have an answer to that bottleneck now. MOBILEX. *It fits more types of ceilings—without the need of expensive custom made adapters than any other recessed lighting fixture on the market.*

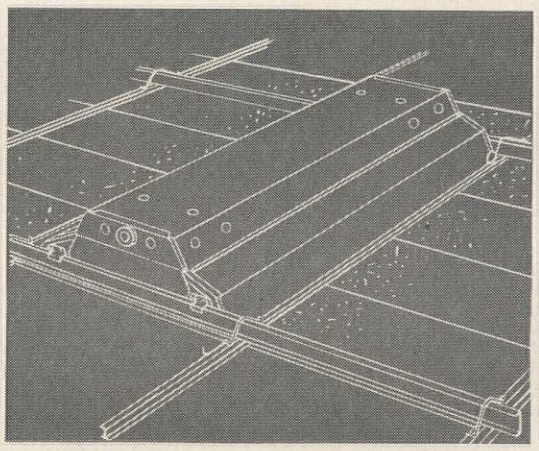
That means MOBILEX gives you a broader range of price, ceiling, and recessed lighting combinations than you've ever had to work with before. And that means a far greater opportunity for you to deliver good design and de luxe lighting—even to clients who must limit you to a modest budget.

Because we know you are always interested in new products that *really help you do a better job,* we think you'll want to see and hear more about MOBILEX. We'll be happy to arrange a MOBILEX demonstration any time you say. We promise you this: you'll find it well worth-while.

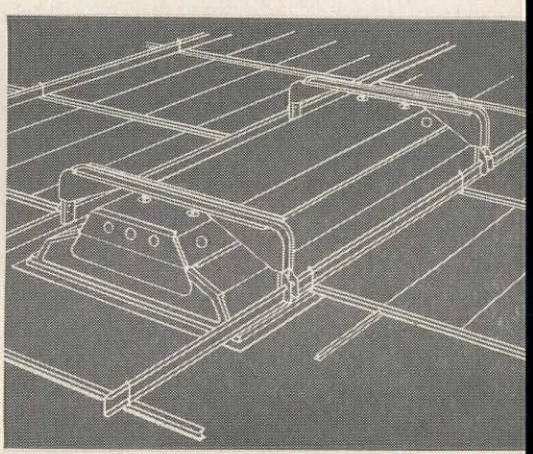
CALL OR WRITE YOUR NEAREST DAY-BRITE REPRESENTATIVE



MOBILEX FITS GRID-TYPE SUSPENDED CEILINGS. Fixture is inserted into grid opening, rests on "tee" rails, locks into place. Reduces installation costs up to 50%. Acoustical ceiling boards, MOBILEX units are interchangeable, permitting quick, low-cost revisions of lighting pattern whenever



MOBILEX FITS EXPOSED SPLINE SUSPENDED CEILINGS. Fixture hooks onto universal 1½" ceiling carrying channels. Multiple use of same supporting members saves material and labor costs. Acoustical tiles, MOBILEX units may be rearranged any time after initial installation.

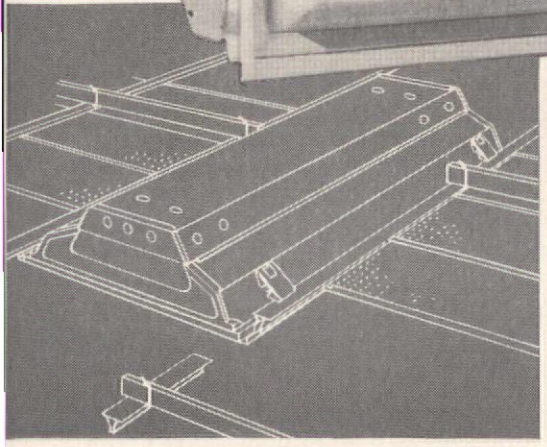


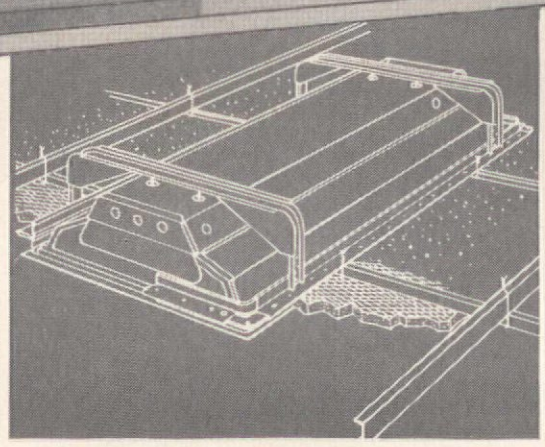
MOBILEX FITS CONCEALED MECHANICAL SUSPENDED CEILINGS. Flange type MOBILEX for acoustical ceilings using concealed metal spline, screw or adhesive methods of supporting mineral tile. This MOBILEX unit is listed with simple-to-install Day-Brite suspension straps which

This is **MOBILEX** with molded plastic panels. Also available with Ribbed Skytex glass panels and BOXCO® louvers, **MOBILEX** can be supplied in 2, 3 or 4 lamp arrangements for 2′ x 2′ fixtures or 2′ x 4′ fixtures. Enclosing element frames have separable hinges and can be hinged from either side or completely removed for quick maintenance.

LOOK AT MOBILEX...
FEEL THE DIFFERENCE...
BEFORE YOU SPECIFY.

436





"DECIDEDLY BETTER"
DAY-BRITE®
Lighting Fixtures

MOBILEX FITS SNAP-IN TYPE ACOUSTICAL CEILINGS. Fixture snaps into the same "Tee-bar" rails that receive metal pan ceiling tiles. Day-Brite designed spring retaining clips snap "home" above the Tee-bars for added security.

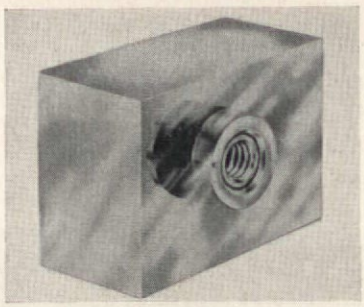
MOBILEX FITS PLASTER CEILINGS. Simple, rugged Day-Brite plaster frames and suspension straps frame the opening and support the MOBILEX for plaster and acoustical tile-on-plaster installations. Extra long studs in suspension straps allow maximum adjustment for positioning fixture.

DAY-BRITE LIGHTING, INC.
5465 Bulwer Avenue, St. Louis 7, Missouri.
In Canada: Amalgamated Electric Corp., Ltd., Toronto 6, Ontario.

(*Continued from page 230*)

BLIND EXPANSION FASTENER

Neo-Grip, a new blind expansion fastener, secures objects to practically all building and construction materials without tearing or shattering them. Of particular application where there is access from only one side of the material, Neo-Grip can be located anywhere since it needs no interior support and eliminates, in many cases, the need for penetration of the material.



Neo-Grip inserted in transparent block shows rubber base and tightening notches

Neo-Grips are installed by first drilling a hole, then inserting the fastener and twisting it in with a special tool. When completely flush, the fastener is anchored securely. Its neoprene-base rubber sleeve exerts great pressure without tearing soft objects or shattering frangibles.

Two sizes of Neo-Grip are available: The P110 has an over-all length of $\frac{7}{16}$ in. and an outside diameter of $\frac{1}{2}$ in. The P125 has an over-all length of $\frac{1}{2}$ in. and an outside diameter of $\frac{9}{16}$ in. Minimum material thickness required is $\frac{3}{8}$ in. for the P110 fastener and $\frac{1}{2}$ in. for the P125. Neo-Grips are packed 100 to the box, with special tool for tightening included. *Star Expansion Products Co., 147 Cedar Street, New York 6, N. Y.*

IRONITE Keith Theatre Building Columbus

IRONITE Princeton University Chapel Princeton

IRONITE Hotel New Yorker New York City

IRONITE Syracuse Memorial Hospital Syracuse

IRONITE J. L. Hudson Store Detroit

IRONITE St. Peters Church Chicago

They Had to Be Sure!

They Used

IRONITE®

WATERPROOFING

Architects and builders of world famous hotels, stores, theatres, cathedrals, bridges and other structures know that water and moisture damage are the worst enemies to their reputation as outstanding craftsmen.

That's why for more than 50 years they have insisted upon *metallic* waterproofing—and particularly upon IRONITE® WATERPROOFING. This preferred metallic water resistant compound has been used on hundreds of famous buildings—in fact, wherever masonry surfaces must resist water, moisture and dampness.

Write for your free copy of Bulletin No. 701 to IRONITE COMPANY, Suite 729, 208 South LaSalle St. Bldg. Chicago 4, Illinois

Used for:

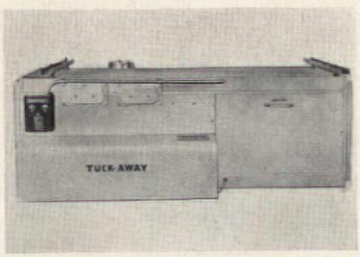
Foundations
Basements
Catch Basins
Boiler Pits
Elevator Pits
Swimming Pools
Cable Vaults
Concrete Fences
Molasses Tanks
Hot Water Tanks
Settling Basins
Tunnels
Bank Vaults
Oil Tanks
Water Tanks
Water Reservoirs
Concrete Bridges
Sewage Disposal Plants
Fuel Oil Tanks

IRONITE COMPANY

*Registered Trademark

HORIZONTAL GAS FURNACE

Designated as "*Tuck-Away*" models, the new horizontal gas-fired furnaces are recommended for homes without basements or furnace rooms. Available in models having Btu input capacities of 60, 80, 100, 120 and 140 thousand Btu per hr, they may be installed in attic space, under the floor, in a regulation basement or suspended from the ceiling of a utility room.



"Tuck-Away," new horizontal gas-fired furnace, features enclosed controls

These furnaces are delivered as package units, shipped completely assembled with controls including the thermostat and thermostat wire. Controls are fully enclosed. There are dual flue outlets, either of which can be attached to the flue, which has a cap to be used when the flue outlet is not in use. The multi-blade centrifugal-type blower is mounted on rubber for quiet operation. The motor is the continuous-duty type mounted on adjustable brackets. Tuck-Away models comply with national safety requirements and have American Gas Association approval. *Perfection Stove Co., 7609 Platt Ave., Cleveland 4, Ohio.*

(*Continued on page 238*)

Choose the floor that's NATURALLY beautiful!

BRUCE BLOCK

Hardwood Floor

Perfect combination for modern homes!

No other floor can match Bruce Hardwood Blocks for an ideal combination of modern beauty, natural charm, and lifetime durability.

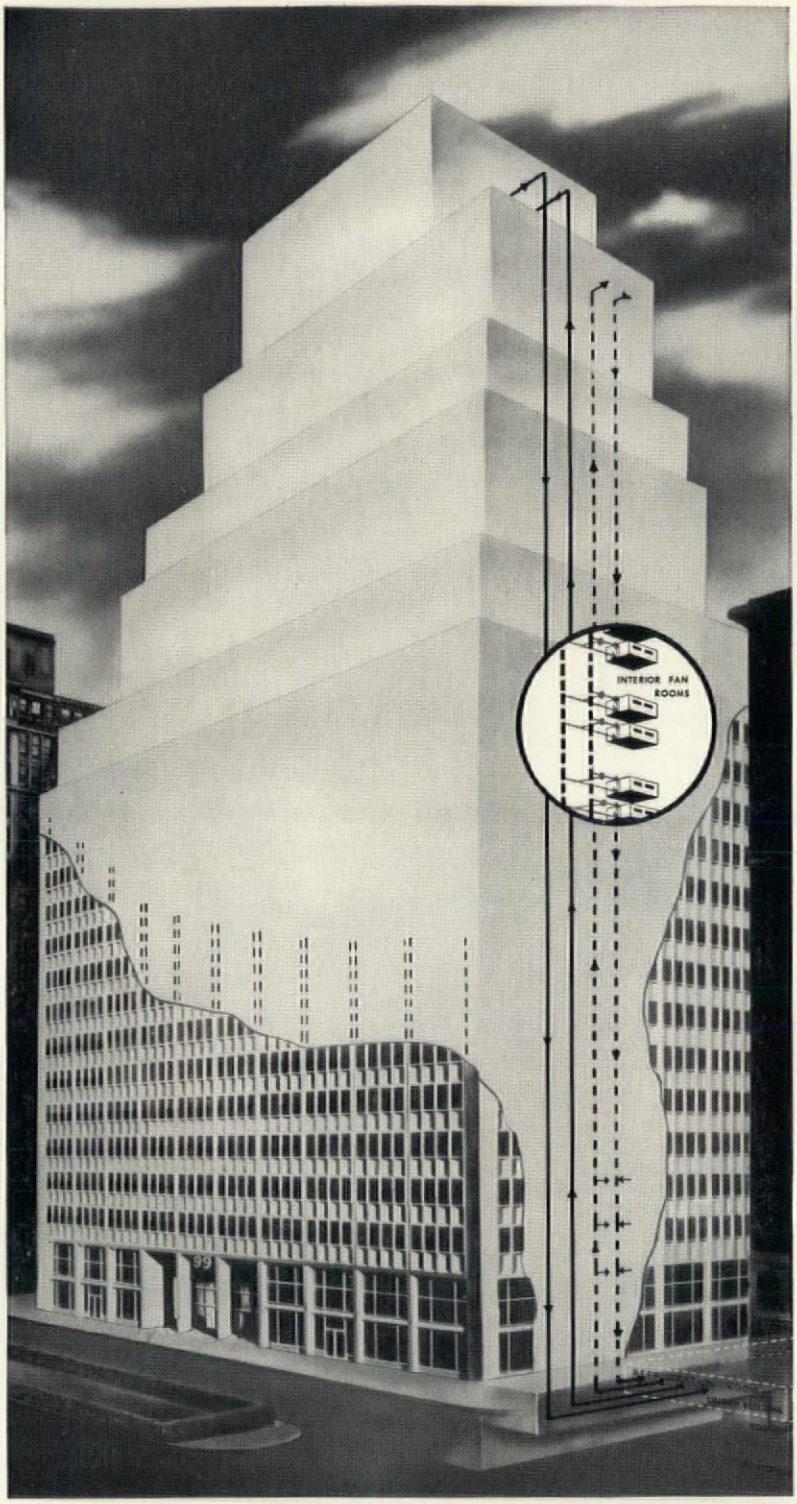
This patterned oak floor gives added style to even the most modern interior. Its interesting grain and rich coloring will never fade nor wear away.

Bruce Blocks are prefabricated for modern construction—can be laid in mastic over concrete or blind nailed over wood subfloors. The factory-applied "Scratch Test" Finish saves time and money on the job . . . eliminates guesswork as to how the finished floor will look and wear. (Blocks can also be purchased for on-the-job finishing.) See our catalog in Sweet's. Write for booklet.

BRUCE

E. L. BRUCE CO., MEMPHIS 1, TENN.

Hedrich-Blessing Photo



WATER IS CHILLED by Worthington centrifugal refrigeration units in sub-cellar, then fed through riser (dotted line — "up" arrows) to interior fan rooms. Water returns to sub-cellar (dotted line — "down" arrows) to complete circuit. Solid lines show condenser water circuit. Double lines show chilled water system (one in each face of building) for room units.

New building trend set by air-conditioned skyscraper

This 26-story structure at 99 Park Avenue is distinctly different from anything ever built in Manhattan.

It's completely sheathed in self-cleaning aluminum, with reversible windows set with heat-resistant glass.

99 Park is also going to set a new standard in comfort for its tenants. Dependable air conditioning is provided by a Worthington system made up of two 665-ton centrifugal refrigerating units, which supply chilled water to 38 Worthington-equipped interior fan rooms. These distribute cooled, dehumidified air to the interior offices on each floor. The centrifugal units also furnish chilled water for individually controllable room conditioners enabling tenants in the outer offices to select their own climate.

For more than fifty years, Worthington-engineered air conditioning installations have been serving business and industry. Whether large or small, Worthington systems are all Worthington-*made*, not just Worthington-assembled. For the full story, contact your nearest Worthington district office, or write to Worthington Corporation, Air Conditioning and Refrigeration Division, Harrison, N.J.

Tishman Realty & Construction Co., Inc., Owners and Builders; Emery Roth & Sons, Architects; W. R. Cosentini & Associates, Consulting Engineers; Raisler Corporation, Mechanical Contractor; Cushman & Wakefield, Inc., Agent.

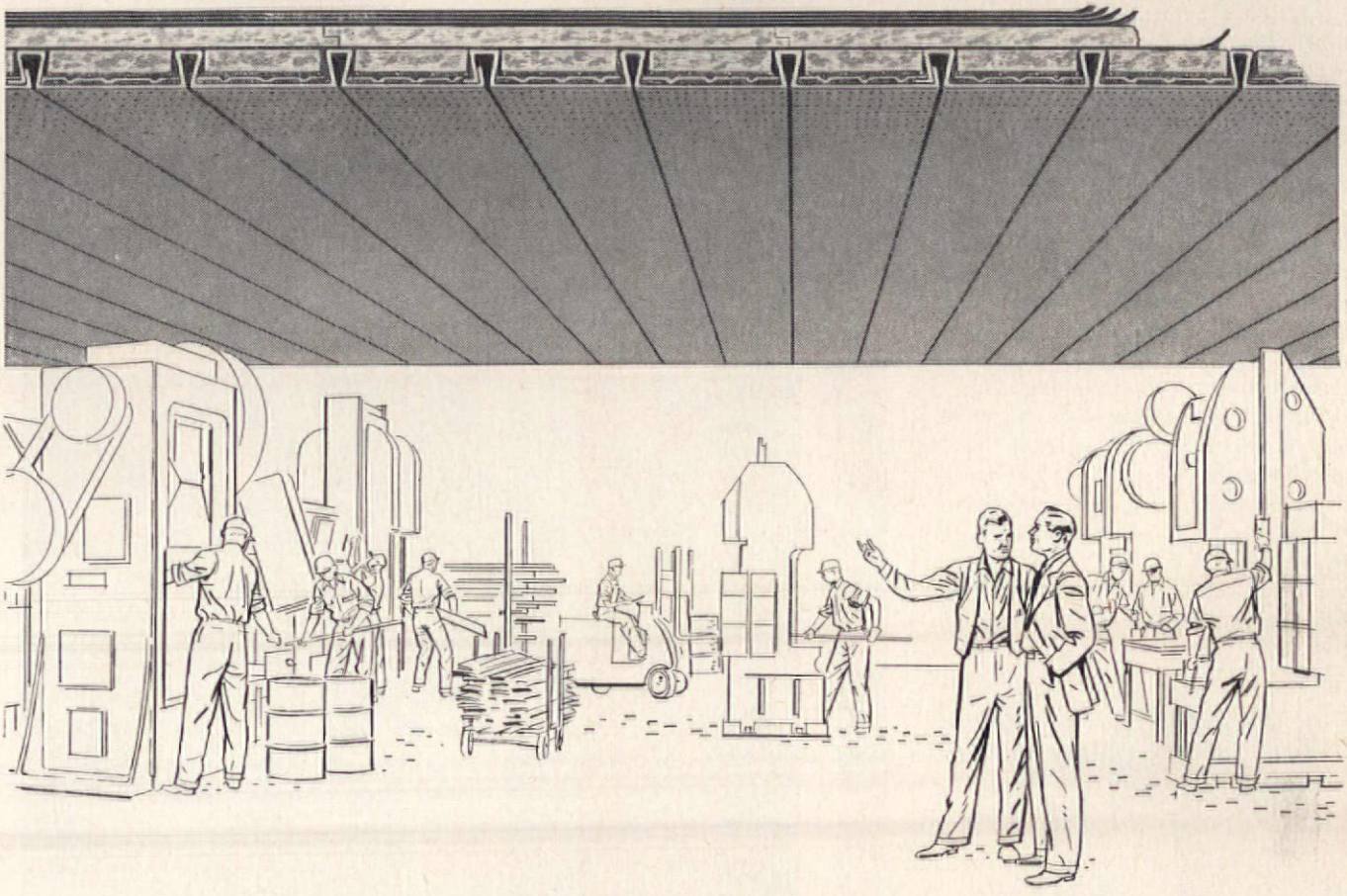
A.4.52

WORTHINGTON

CLIMATE ENGINEERS TO INDUSTRY, BUSINESS AND THE HOME

Fenestra 50 YEARS OF BUILDING PRODUCT LEADERSHIP

*"A salute to those who made it possible"**



SILENCE IS REALLY GOLDEN . . . HERE!

Noise, NOISE, NOISE. Nagging, hammering, screeching, deafening. In plant after plant, workers complain, work lags, men stay home until their heads stop ringing. Industrial noise causes a reported *$4,000,000*-a-day loss in worker efficiency.

But there's an answer—in a new *Fenestra** building idea: A combination acoustical-structural roof that costs as little as 75 cents per square foot . . . installed.

In one compact unit you get: (1) perforated light-gauge Fenestra Holorib Steel Deck which provides a smooth-finished, metal-faced interior ceiling; (2) sound-absorbing element which is also efficient heat insulation; (3) strong steel surface for support of wood fiber insulation and finished roofing.

Holorib is lightweight. It saves you building time, labor, materials and money. It's practically maintenance free. But you *can* wash it or paint it time and time again without hurting its acoustical efficiency a bit. And, it's *noncombustible!*

General Motors Technical Center, Warren, Michigan; Standard Pressed Steel Company, Jenkintown, Pa.; Simmons Saw & File Company, Fitchburg, Massachusetts . . . these are just a few of the companies taking advantage of this great Fenestra development.

Write us for complete information—or have your architect write—and check on Fenestra floor panels and wall panels. Fenestra Metal Building Panels speed building and cut costs because they are a multi-purpose building material. Write Detroit Steel Products Company, Dept. AR-5, 2252 E. Grand Blvd., Detroit 11, Michigan.

*Trademark

* Your need for a practical way to make a factory quieter encouraged us to develop Fenestra Acoustical Holorib.

Fenestra | METAL BUILDING PANELS

(*Continued from page 234*)

MORE NEW KNOLL FURNITURE

Knoll, internationally known manufacturers of contemporary furniture and textiles, introduced seven new pieces at the Winter Furniture Market. The Knoll collection includes pieces in every price range, based on the actual cost of materials used and the application of mass production or hand finishing or both for the particular design.

Chairs by Bertoia combine sturdiness needed for heavy wear and a light transparent look. The chairs, created for flexible indoor-outdoor use, have many special features, including a special rust-resistant finish and removable slip-covers for easy cleaning. They are made of steel wire on seat and back and are supported on a sturdy steel rod base.

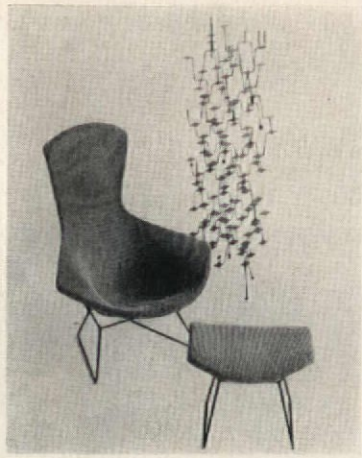
The high-back lounge chair (No. 423), 38½ in. wide, 33½ in. deep, 41 in. high, and ottoman (No. 424) are designed with seat and back formed to the contour of the body and cushioned with foam rubber. They are available in two versions: black oxide seat and base and white lacquer seat with a black oxide base.

Cocktail table available with surface of melamine with walnut strip or all walnut

• A new large lounge chair (No. 422), 44¾ in. wide, 30¾ in. deep, 28½ in. high, of an expansive soft diamond shape, also comes in two versions: No. 422 is black oxide seat and base; 422–1 white lacquer seat and black oxide base. Both high back and diamond chairs are covered with *Prestini*, a richly textured all-cotton fabric in gray, charcoal, yellow, red and camel.

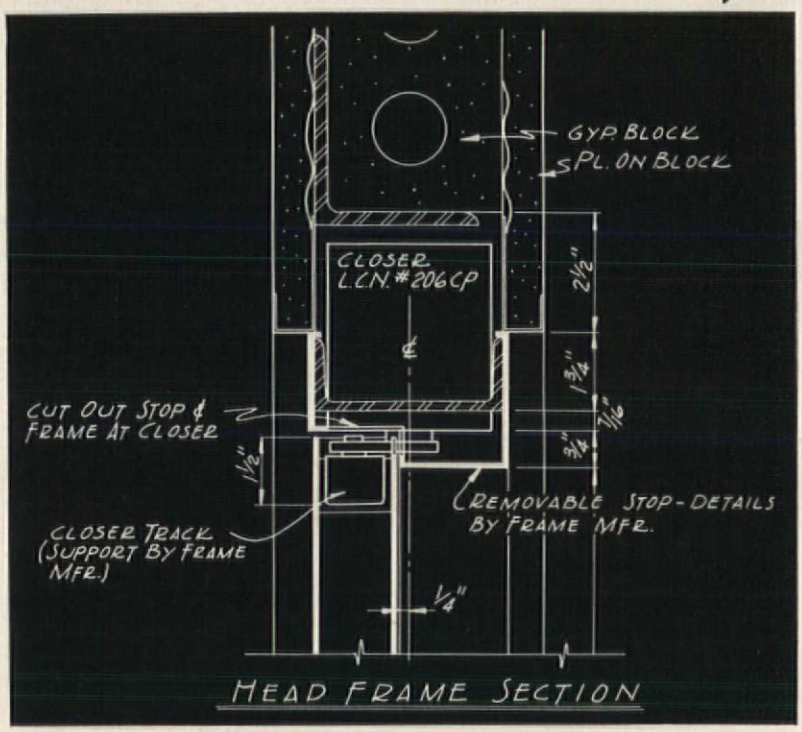
• Florence Knoll has designed two new tables — a coffee table and an extension table — both with plastic laminate burn and stain-resistant finishes.

The round coffee table (No. 402) consists of four clear maple sections divided with a walnut strip. The legs are also of walnut. The table, 42 in. in diameter and 15½ in. high, is also available in all-walnut plastic.



(*Left*) Foam rubber high-back chair and ottoman. (*Above*) Side chair with molded teak back and seat.

(*Continued on page 242*)



CONSTRUCTION DETAILS

for LCN Overhead Concealed Door Closer Installation Shown on Opposite Page

The LCN Series 200 CP Closer's Main Points:

1. Efficient, full rack-and-pinion, two-speed control of the door
2. Mechanism entirely concealed; arm disappears into door stop on closing
3. Ideal for batteries of center-pivot-hung doors without mullions
4. Hydraulic back-check to protect walls, furniture
5. Hold-open (optional) set at any one of following points: 85°, 90°, 100°, or 110°
6. Used with wood or metal doors and frames.

Complete Catalog on Request—No Obligation

LCN CLOSERS, INC., PRINCETON, ILLINOIS

Robert S. De Golyer, *Architect*

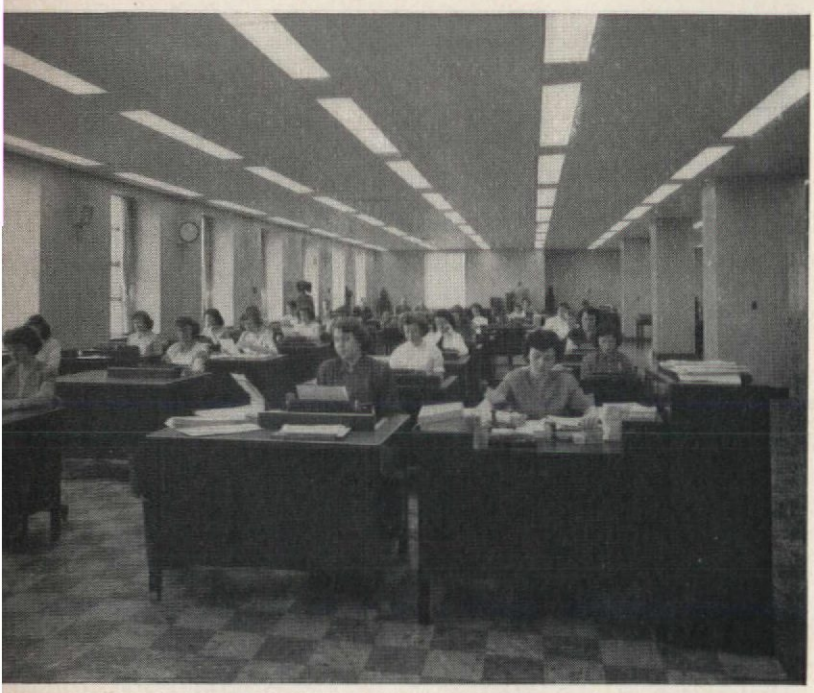
MODERN DOOR CONTROL BY *LCN* · CLOSER CONCEALED IN HEAD FRAME

THE BROCKTON, CHICAGO, ILLINOIS

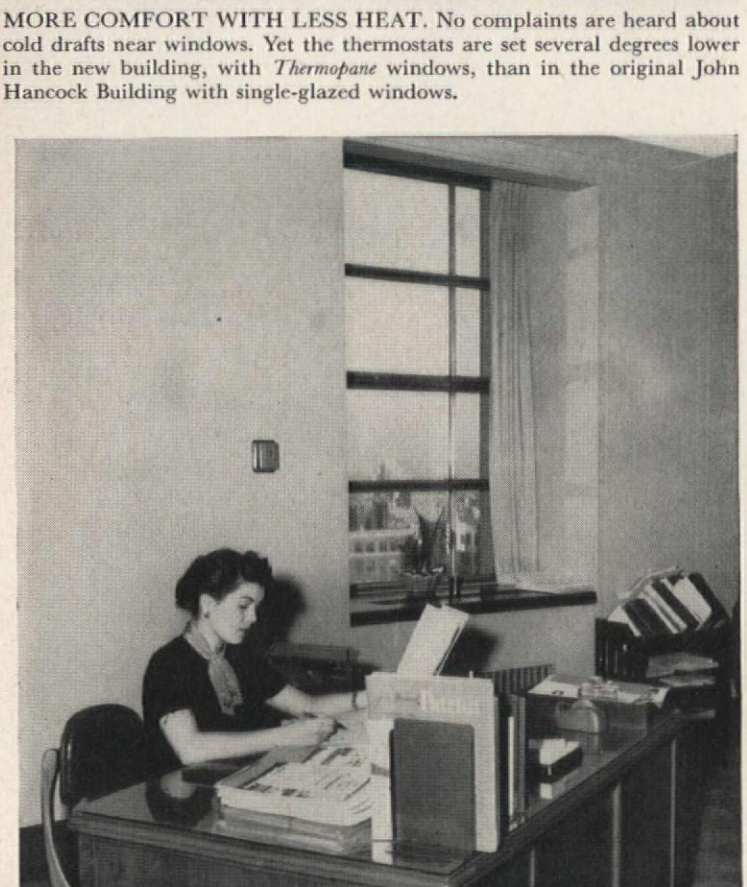
LCN CATALOG 11-E ON REQUEST OR SEE SWEET'S • LCN CLOSERS, INC., PRINCETON, ILLINOIS

Thermopane® saves $6.04 pe

and keeps people mor



MORE COMFORT WITH LESS HEAT. No complaints are heard about cold drafts near windows. Yet the thermostats are set several degrees lower in the new building, with *Thermopane* windows, than in the original John Hancock Building with single-glazed windows.



A 5-Year Performance Repor on 1487 Thermopane windows Boston's John Hancock Buildi

Five winters and four summers have passed since the J Hancock Mutual Life Insurance Company Building Boston was first occupied. To find out what's been lear from this experience, the building management was ask

> What do you and the 5,400 people who work in your building think of *Thermopane's* contribution to air-conditioned comfort?

ANSWER:

> Building management is well pleased with the *Thermopane* windows and feels they very definitely aid in the satisfactory operation and balance of the air-conditioning system. Occupants of the building never comment on the windows, probably aren't even aware they are *Thermopane*.

The fact that occupants never comment on the window perfect testimony for *Thermopane* insulating glass. T plainly means there is no discomfort from drafts n windows. With single-glazed windows in the compan original quarters, recently renovated, it is necessary to k thermostats between 75° and 76° for comfort. However 73° thermostat average setting adequately cares for needs of the new addition.

* Operating cost comparison betwe

Following is the complete cost study made in November, 19 by an independent firm of air-conditioning engineers.

HEATING

Assume that the heat losses due to infiltration, cracka etc., will be the same whether single glass or *Thermo* is used. This will leave the direct transmission through the windows as the only variable.

From the latest issue of the ASHVE Guide, the rat heat transfer through a single glass is 1.13 B.T.U. hour per square foot per Fahrenheit degree differenc temperature between the air on the two sides of the gl and the rate of heat transfer through *Thermopane* is B.T.U. per hour per square foot per degree temperat differences.

The heating design conditions for Boston are zero deg outside and 70 degrees inside, or a temperat difference of 70 degrees.

The windows measure 5′0″ x 7′0″, or 35 square feet e 35 x 70 x 1.13 = 2,769 B.T.U. per hour loss per win for single glass.

2769 x 1487 windows = 4,116,760 B.T.U. per hour, t heat loss for single glass.

window per year*

comfortable, too

Building management's appreciation of *Thermopane* stems om three benefits. First, the air-conditioning system, of hich they consider *Thermopane* an integral part, has oper-ed most satisfactorily.

Second, *Thermopane* keeps the offices notably quiet in ite of heavy traffic on streets outside. Even on the lower oors, fire sirens are muted and ordinary traffic din is duced. Absence of such distractions is invaluable.

Third, management can measure in dollars the savings steam for heating and power for air conditioning that *hermopane* yields—and will *continue* to yield for the life of e building. A highly reputable, independent firm of air-nditioning engineers and contractors has calculated at *Thermopane* saves John Hancock $8989 annually. hat's $6.04 per window per year, nearly $45,000 ved in five short years. Details of the engineering firm's lculations are given below.

The two great benefits of *Thermopane*, comfort for occu-ants and lower operating costs for owners, are inseparable. houghtfully considered, these combined values make the gher cost of *Thermopane* a sound investment for any ilding that is heated in winter and cooled in summer. 's an investment that is certain to pay off.

OF GLASS PF Corrulux PF FIBER-GLASS

Thermopane INSULATING GLASS

BBEY-OWENS-FORD GLASS COMPANY, 8554 NICHOLAS BLDG., TOLEDO 3, OHIO

BOSTON'S TALLEST building, home of John Hancock Mutual Life Insurance Company, is glazed from street to tower with *Thermopane* in 1487 windows.

ingle glass and *Thermopane*, John Hancock Mutual Life Insurance Company, Boston, Mass.

5 x 70 x 0.61 = 1,495 B.T.U. per hour loss per window for *Thermopane*.

495 x 1487 windows = 2,222,320 B.T.U. per hour, total heat loss for *Thermopane*.

,116,760 – 2,222,320 = 1,894,440 B.T.U. per hour, total saving from use of *Thermopane* at a 70° differential.

his figure of 1,894,440 B.T.U. per hour must be adjusted because the temperature differential is not constantly at 70 degrees.

he normal heating season for Boston is 273 days.

The normal outside temperature for Boston is 42.9°, during the heating season.

ne pound of steam = 960 B.T.U.

ounds of steam saved per heating season

$$= \frac{24 \times 273 \times (70 - 42.9)}{960 \times (70 - 0)} \times 1894440$$

$$= \frac{24 \times 273 \times 27.1}{960 \times 70} \times 1894440$$

$$= 5{,}020{,}000$$

he average cost of district steam is $1.30 per 1000 pounds.

$$\frac{5{,}020{,}000}{1000} \times \$1.30 = \$6{,}530.00$$—Approximate annual savings during the heating season from use of *Thermopane*.

COOLING

The owner's log of cooling compressor and pump operation shows that, for a typical year, one or more of the compressors and pumps is in operation for 935 hours between April and October. A total of 1,126,400 kilowatt hours of electrical energy were consumed during that period at an estimated cost of $.01680 per K.W.H.

Best available information shows that there is an approximate 11.5% saving in transmission of radiant energy from the use of *Thermopane* versus single glass.

If, S.G. = Amount of electrical energy using single glass

Therm. = Amount of electrical energy using *Thermopane*

S = per cent saving due to use of *Thermopane*

Then,

S.G. – (S.G. x S) = Therm.

S.G. – (S.G. x .115) = 1,126,400

.885 S.G. = 1,126,400

S.G. = 1,272,780 K.W.H. of elec trical energy which would be consume if single glass were used

1,272,780 – 1,126,400 = K.W.H. of electrical energy saved due to the use of *Thermopane*

146,380 x $.01680 = $2,459.00—Approximat annual savings during the cooling seaso from use of *Thermopane*.

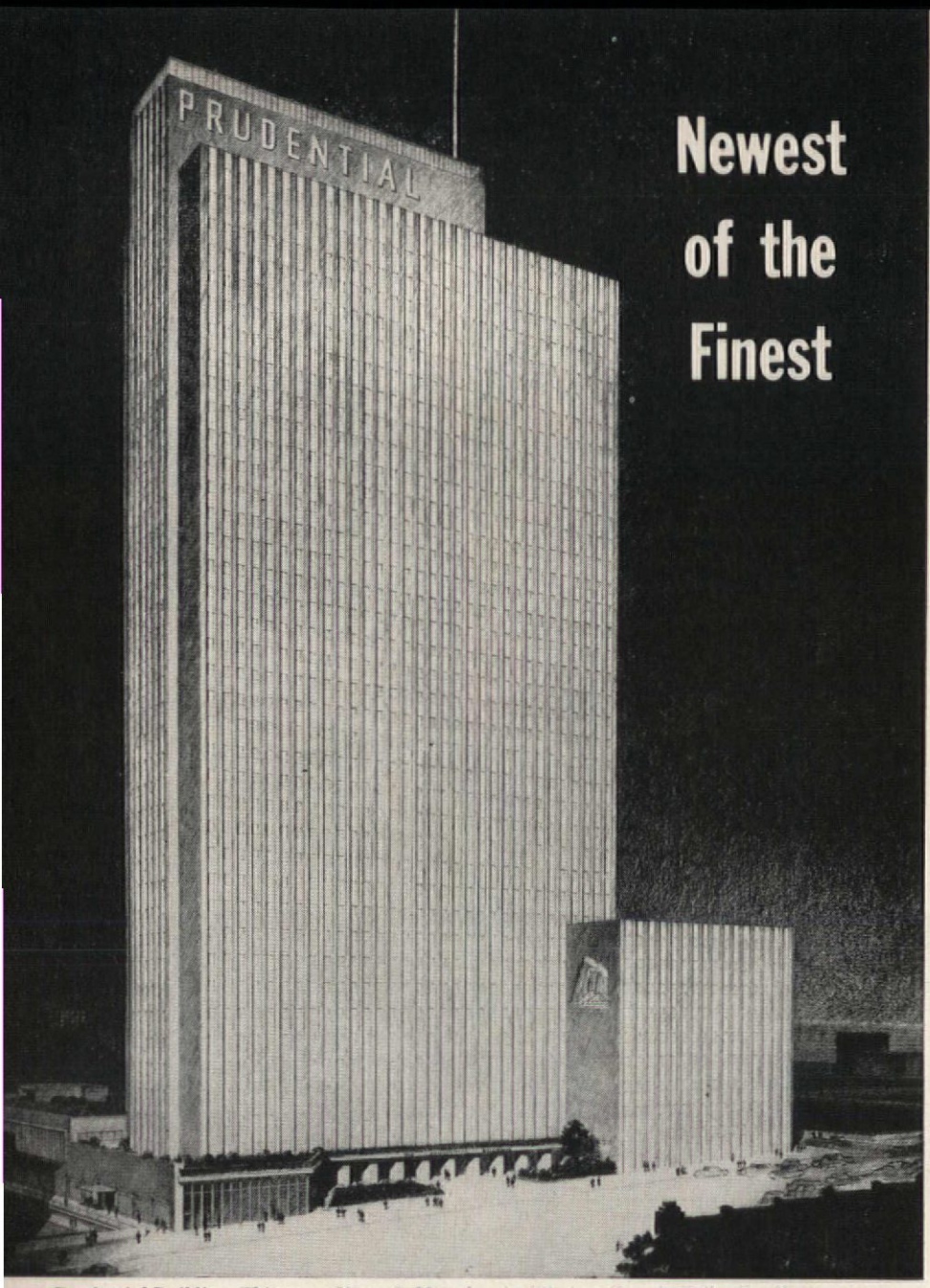
SUMMARY

The estimated annual savings in operating cos due to the use of *Thermopane* versus single glass as follows:

Heating Season = $6,530.00

Cooling Season = 2,459.00

Total Annual Saving = $8,989.00



Newest of the Finest

Prudential Building, Chicago • Naess & Murphy, Architects • Geo. A. Fuller Co., Contractors

The new Prudential Building will soon rise 600 feet above the shore of Lake Michigan, and become a distinguished addition to Chicago's skyline. This mid-America headquarters of the Prudential Insurance Company will contain more space than any other building used exclusively for offices in Chicago.

As a building, it will take its place among our country's finest structures and is a perfect example of the features a well-informed investor is willing to put into the space he plans to use and rent For instance, to prevent future obsolescence and to meet the increasing requirements of modern electronic office equipment, architects Naess & Murphy have prepared the new Prudential Building to handle the highest electrical load of any office building yet built. To do this job easily, and to permit layout changes and additions at minimum cost, Robertson Q-Floor construction is being used. This strong, light-weight, steel, cellular structural floor is the only construction material available which provides easy electrical access over every 6-inch area of the entire exposed floor. For more good reasons why fine new buildings all over America have turned to Robertson Q-Floor construction, see the opposite page.

Robertson

Q-Floor

a product of **H. H. Robertson Company**

2404 Farmers Bank Building • Pittsburgh 22, Pa.

Offices in All Principal Cities **World-Wide Building Service**

AIA PRODUCTS

(*Continued from page 238*)

Lounge chair in expansive soft diamond shape covered with *Prestini*

• Kurt Nordstrom has employed simplicity in the design of the *Swedish Side Chair*, of molded teak plywood seat and back with natural finish. The chair, 18¾ by 19½ by 30 in., has wooden tips on the foot of the chair legs which are made of tubular steel with black oxide finish. *Knoll Associates, Inc., 575 Madison Ave., New York 21, N. Y.*

COLOR FOR PLASTIC WALL TILE

Seventeen new related colors in a new color-styled line of polystyrene molding granules are being offered by the Dow Chemical Corp. to manufacturers of plastic wall tile made of Styron.

The Styron tiles reportedly have "depth of color," a direct result of the inherent translucent nature of plastic. Because the light travels into the tile instead of striking a single plane on the surface, walls have a soft appearance and remain pleasing under any of the common types of lighting: incandescent, daylight fluorescent, or cool white fluorescent.

Dow's color stylist, working in cooperation with color stylists in all other fields of home furnishings, has developed 17 related colors which will harmonize with any scheme of color in the home.

Styron wall tiles are about 0.060 in. thick except through the bevel edge which measures about ⅛ in. thick. The popular sized 4¼ by 4¼ in. field tile is available as well as other sizes. Trim tiles are available in 2⅛ by 4¼ in. and in narrow strips. No special metal trims are needed with the plastic wall tile. All standard aluminum and plastic moldings can be used.

(*Continued on page 243*)

(*Continued from page 242*)

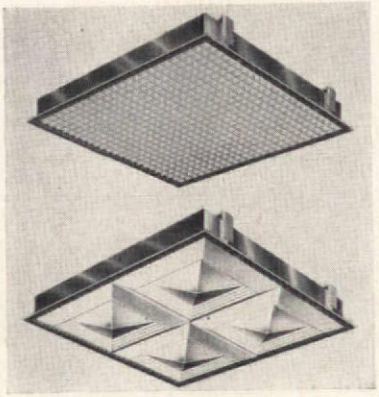
Styron tiles can be installed by using the field tiles in a conventional way and trimming with straight borders, or patterns with contrasting tiles may be worked out. The tile can be staggered, placed in line, pointed or unpointed.

The tiles are suitable for application on plaster, plaster-board, wood, plywood, and a number of other surfaces. The wall must be true in order to insure satisfactory installation. Tiles may also be heat-formed on the job and used for convex or concave surfaces in archways, recesses and under stairways.

Styron tiles are most frequently used in kitchens, bathrooms, breakfast nooks, hallways, recreation and utility rooms. *Dow Chemical Corp., Midland, Mich.*

LIGHTING FOR COMMERCIAL INTERIORS

Sunbeam No. 3800 Series offers "large area source" of high intensity, low brightness lighting for large commercial interiors. The manufacturer recommends these units as most effective for glareless, balanced illumination in areas with high ceilings. Almost like a prefabricated ceiling cell, these *Sunbeam* luminaires offer new design possibilities in ceiling patterns. These recessed light cells take four, six, eight or ten fluorescent-type lamps providing a choice of illumination intensities. A choice of egg-crate louver or molded plastic diffusing elements is also available.



Large-area, recessed, 4-ft (nominal) square light panels

The plastic shielded light square, *No. HDP 3800*, has translucent white Plexiglas. This panel is a single 4-ft sq (nominal) element molded into a sturdy, per-

(*Continued on page 246*)

Why the Finest New Buildings Have Q-Floor

Beyond the fact that Q-Floor offers the greatest electrical availability of any structural floor in existence (as indicated in the above illustration), there are several other vital reasons why it has become a part of the finest new buildings in America.

Q-Floor saves construction time and money. The steel cellular units come on the job cut to fit so that two men can lay 50 square feet in one minute. In the case of the U. S. Steel-Mellon Bank Building in Pittsburgh, forty floors were installed in four months. Because Q-Floor provides a perfect platform for work and storage, 1,000 men were able to operate on the job without interfering with each other. Q-Floor saves steel as a result of its favorable ratio of weight to strength. Footings and structural steel can be lighter than with ordinary construction. Moreover, Q-Floor saves drafting room time since completely predetermined wiring and mechanical layouts are not necessary. Because no combustible forms and shoring are required, there has never been a construction fire on a Q-Floor job. Add these features to low cost on wiring changes in the years to come, and it's easy to see why Q-Floors are a feature of America's finest new buildings.

The Robertson Technical Library contains data books on Q-Floor which should be part of every architectural and engineering library. Write to us.

Robertson

Q-Floor

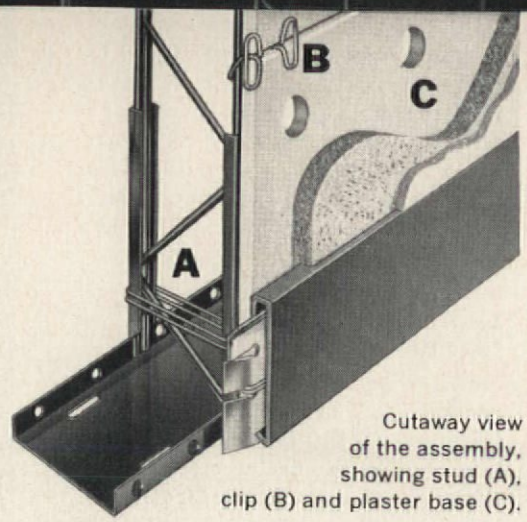
a product of **H. H. Robertson Company**

2404 Farmers Bank Building • Pittsburgh 22, Pa.

In Canada: Robertson-Irwin Ltd., Hamilton, Ontario

In England: Robertson Thain Ltd., Ellesmere Port, Cheshire

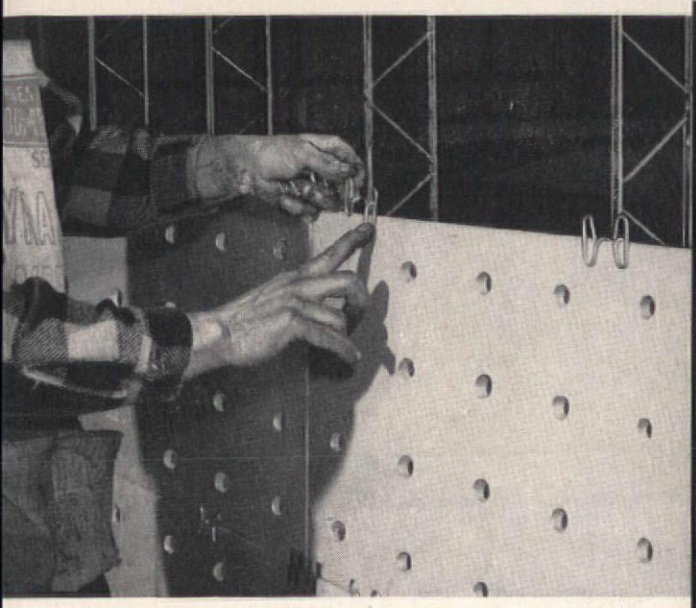
save time
save labor
save materials



Cutaway view
of the assembly,
showing stud (A),
clip (B) and plaster base (C).

Lather ties steel shoes which
hold the TRUSSTEEL stud rigidly in place.

specify
the industry's fastest-erecting fireproof hollow partition system



TR-1 clip attaches easily, holds perforated ROCKLATH plaster base firmly in position.

U.S.G.'s TRUSSTEEL *stud,* ROCKLATH *partition assembly* goes up faster than any comparable system presently in use. Ease and speed of erection (no special tools are required) cut time and labor costs. The hollow partition simplifies concealment of ducts, pipes and wiring; stud thickness may vary as required from 2½" to 6". In addition, the system is *sound-resistant*—up to 46.5 db. sound transmission loss rating; *fireproof*—typical 5¼" partition has 1-hour fire rating; and lightweight—weighs as little as 11.5 lbs. per sq. ft., which in many cases permits savings of structural steel. New, improved metal clips attach either plain or perforated ROCKLATH plaster base to the TRUSSTEEL studs.

- **TRUSSTEEL*** Studs
- **ROCKLATH*** Plaster Base
- **STRUCTO-LITE*** Perlited Gypsum Basecoat Plaster
- **IVORY*** Finishing Lime

One-package STRUCTO-LITE *mill-mixed, perlited gypsum basecoat plaster is lighter weight, more fire-resistant, adaptable and economical.* Pre-mixing at the mill saves labor and materials, and eliminates variable sets caused by variations of aggregates mixed on the job. STRUCTO-LITE places 50% less weight on framing members. In certain constructions it holds back flames up to twice as long as sanded plaster. Finished cost compares favorably with plaster sanded on the job.

IVORY—*the modern, double-hydrated finishing lime* is more than 92% hydrated during manufacture, eliminating troubles from delayed hydration, expansion, and separation from the wall. Develops high plasticity immediately when mixed with water; may be mixed by hand or machine, eliminating overnight soaking and speeding job operations.

You take no chances when you specify U.S.G. methods and materials. U.S.G.'s hollow partition systems have proved superior on job after job. When you specify TRUSSTEEL stud, ROCKLATH partition system... STRUCTO-LITE plaster... IVORY lime, you specify with *confidence*—because you're sure of top performance backed by one dependable manufacturer—United States Gypsum. Ask your U.S.G. Architects' Service Representative for complete details; or write Dept. AR-2, 300 W. Adams St., Chicago 6, Ill.

*T. M. Reg. U. S. Pat. Off.

USG UNITED STATES GYPSUM

UNITED STATES GYPSUM

the greatest name in building

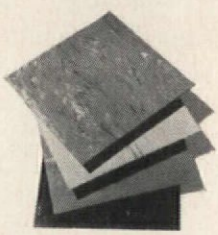
low upkeep — inside and out— marks new pre-fab skyscraper

The Southwest's largest building—Republic National Bank of Dallas —will require an absolute minimum of maintenance. Thanks to its aluminum "skin," there will never be a need for exterior painting, blasting, or pointing. And, thanks to Wright Rubber Tile inside—floors will retain their lustrous new-look beauty for many decades with only periodic light waxing and buffing.

Wright Rubber Tile—*America's original rubber tile*—is right at home in *Dallas' newest office building*. No resilient flooring is easier to clean and *keep* clean. Its dense, compact surface resists dirt, acids, alkalis and abrasion . . . yet it is comfortable and quiet underfoot. And Wright's outstanding wearability makes it ideal for heavy-traffic areas.

Available in 50 rich colors; 6-inch to 36-inch squares; 1/8", 3/16" and 1/4" thickness. Send for samples and architect specifications. Wright Manufacturing Co., 5205 Post Oak Rd., Houston, Texas.

WRIGHTEX
WRIGHTFLOR
VINYL TILE
ECONOTILE



Republic National Bank Bldg., Dallas, Texas
Architects: Harrison and Abramovitz, New York
Gill and Harrell, Dallas
General Contractor: J. W. Bateson, Dallas
Flooring Contractor: Titche-Goettinger, Dallas
Flooring Wholesaler: Vickery & Co., Dallas

WRIGHT
RUBBER TILE
The 100-Year Floor!

see our catalog in ARCHITECTURAL FILE or write for copy

4891

AIA PRODUCTS

(*Continued from page 243*)

manent shape, whereby there is no light lost or trapped in the frame. Light absorption of this material is practically nil since the sum of the transmission and reflectance values equals 100 per cent of the light output. A rigid but lightweight frame with positive-acting snap-lock latches and opening on a full-length piano hinge supports the single piece plastic. The No. HL 3800, egg-crate louvered units provide 32 deg shielded lengthwise and crosswise with uniform, low brightness. Shielding of 45 deg is also available. All deg shielding is also available. All units may be installed by standard mounting methods. *Sunbeam Lighting Co., 777 East 14th Pl., Los Angeles, 21, Calif.*

TILE SQUEEZED FROM TUBE

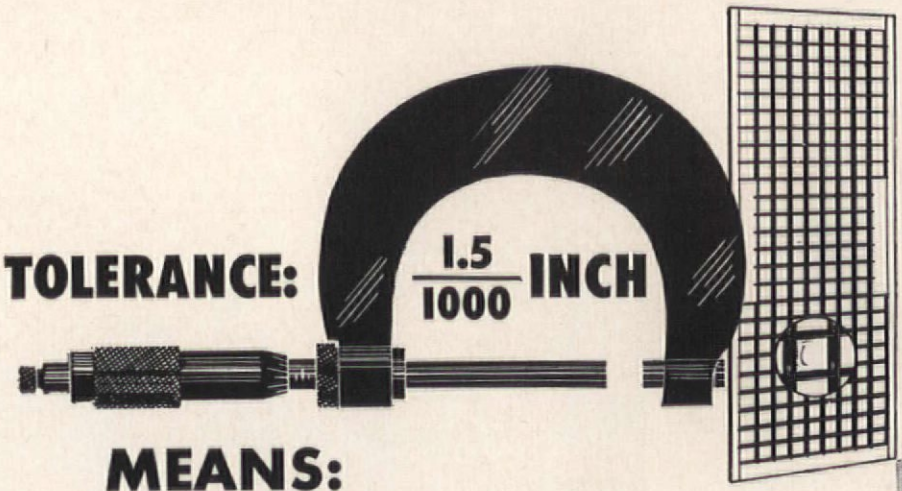
New *Stop Gap* caulking compound looks and feels like white tile, can be squeezed from a tube to fill in cracks and crevices around sinks and tubs. It is reported that this new plastic rubber compound has been so formulated that it will never shrink, crumble or discolor with age. Simple to apply because of a new type nozzle spout container, it dries overnight to a smooth flexible inlay. Its tile-like surface can be easily repainted any color. It is waterproof and helps stop rust and rot. The product, available in 8 oz tubes, is also recommended for use on frames, counter backs, moldings, sills, glazing repairs, flashing, casing and joints. *Sapolin Paints Inc., 229 E. 42 St., New York, N. Y.*

RESTAURANT EQUIPMENT

• An "*Economy*" *counter stool* (*number 241*) consisting of a 3½-in.-diameter center column and a balloon one-piece steel seat ring, has been added to the *Lion Brand* line. All parts are triple chrome plated for long-lasting, easy-to-care-for performance. The 241 center stool is shipped knocked down and is quickly and easily assembled.

• The 1700 series features an octagonal stamped steel table base with a 3- or 4-in. center column. It is available in a variety of finishes including black crackle with chrome column, all chrome, baked

(*Continued on page 250*)



TOLERANCE: 1.5/1000 INCH

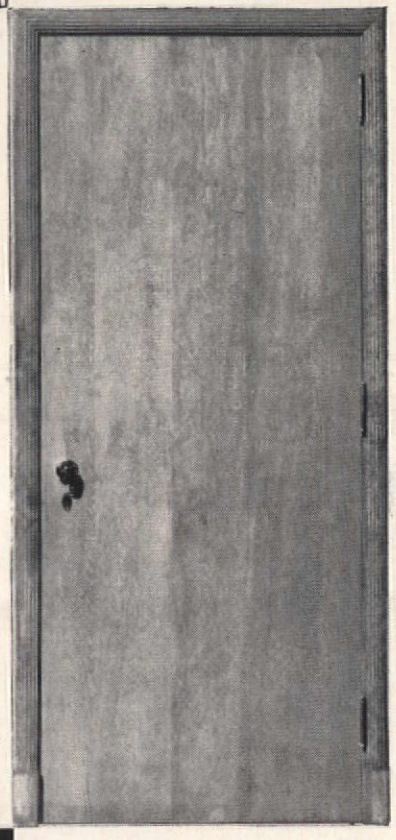
MEANS:

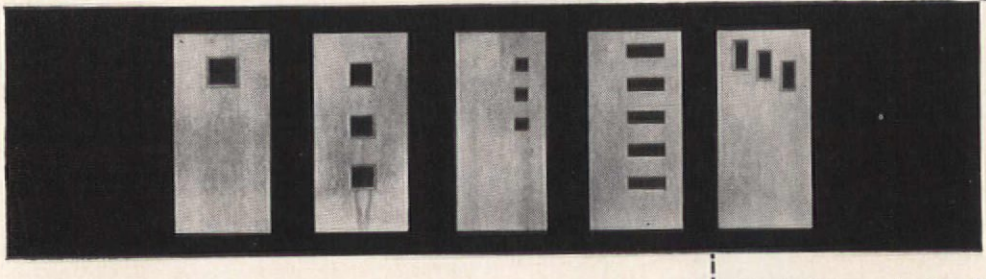
no sagging...no warping lifetime satisfaction!

There's nothing vague about the superior quality that's built into every Curtis New Londoner Hollow Core Flush Door. For instance, the core and grid are manufactured to such precision standards that permitted tolerances have a plus or minus margin of only $\frac{1.5}{1000}$ of an inch!

That's typical of the skill and care that make these better doors famous for their dimensional stability. The patented hollow core of the New Londoner is *locked* into the stiles, rails and lock blocks. Every New Londoner Door is a completely joined unit with nothing to get out of place.

Time works *for* you—not against you—when you choose Curtis New Londoner Doors—because these doors give LASTING satisfaction to the homeowner. That's been *proved* by more than 4,000,000 installations. When the doors have to be good, specify "Curtis New Londoner"—and be sure.





For complete information see "Curtis New Londoner" section in *Sweet's Architectural Catalog* —or mail the coupon.

Door designs shown here—and many others—are available either with Curtis New Londoner hollow core construction or Curtis American solid core. These are only a few of the many Curtis offers, both for exterior and interior use. These doors are available in wide widths for schools, hospitals and public buildings.

1866 CURTIS NEW LONDONER HOLLOW-CORE FLUSH DOORS

R-5-54

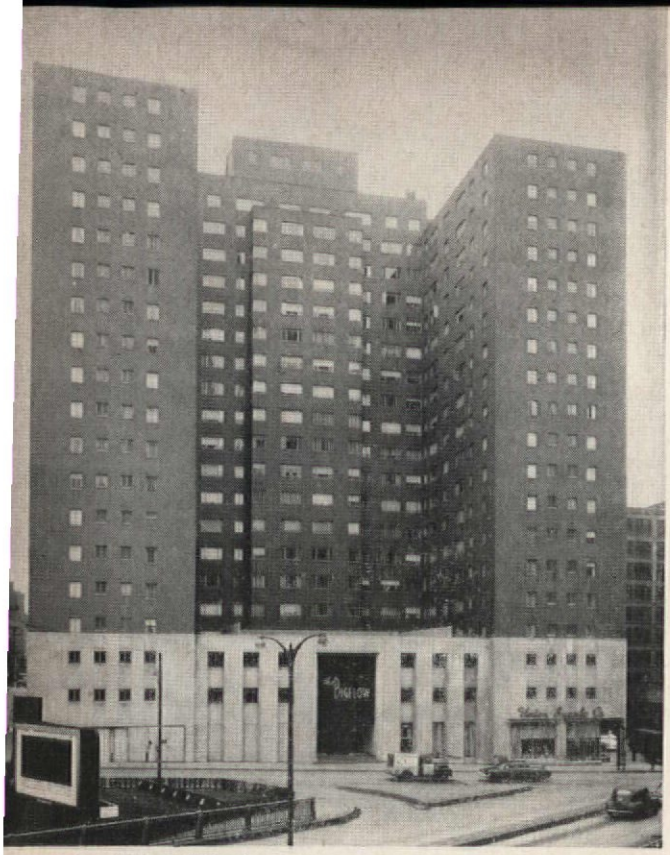
Curtis Companies Service Bureau
200 Curtis Building
Clinton, Iowa

I want to know more about Curtis New Londoner and Curtis American flush doors. Please send literature.

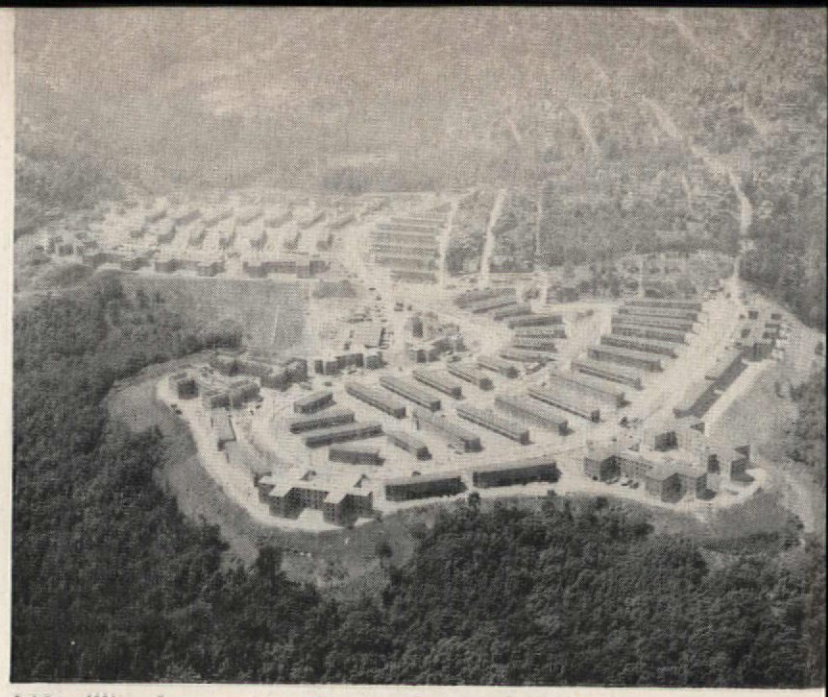
Name.....

Address.....

City.....*State*.....



$5-million Bigelow Apartments, at the top of Pittsburgh's famed Golden Triangle tower 20 stories, contain 465 units all air conditioned. Steeltex Floor Lath provides reinforcement for all floors. Arthur E. Tennyson, Architect. Martin C. Knabe, Structural Engineer. Behrman & Passel, Contractors.



$13-million low rent public housing project, St. Clair Village, 79 buildings, 723 units in 3-story buildings, 366 units in 2-story row houses. Concrete floors poured over Steeltex. Marks, Fisher & Simboli, Architects. George Levinson, Design Engineer. Ragnar Benson, Inc., Contractors.

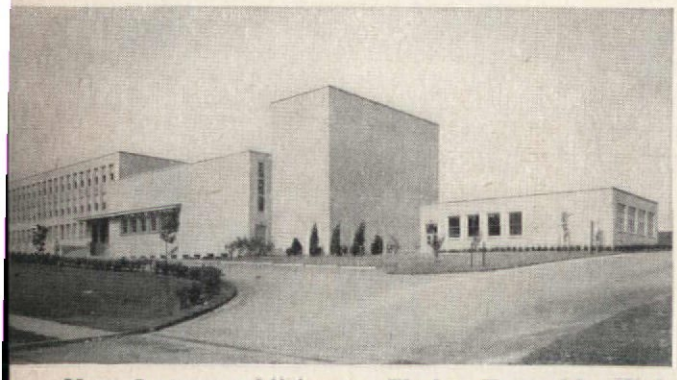
Why building designers in for reinforcing concrete

Pittsburgh, City of Vision, is one of the most progressive cities in America today. Once dirty and smoky and threatened constantly with floods, Pittsburgh, now undergoing a renaissance, is one of the country's cleanest cities.

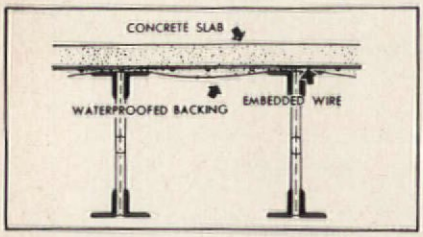
A vast network of dams in the headwaters of the Allegheny and Monongahela make damaging floods virtually impossible. A stream purification program is well under way. A new $5-million-per-mile east-west parkway, partially completed and in use, will speed traffic through the city's heart without cross streets or traffic lights. New skyscrapers, new research centers, new industrial plants, new parks, new off-street parking garages have brought about a boom in new apartments and public housing, new schools and hospitals, new shopping centers.

When buildings of this type are being designed, poured concrete decks are most desirable and when you pour concrete, it is only natural to specify Steeltex Floor Lath, the galvanized steel wire reinforcing which carries its form on its back (see cross section below left).

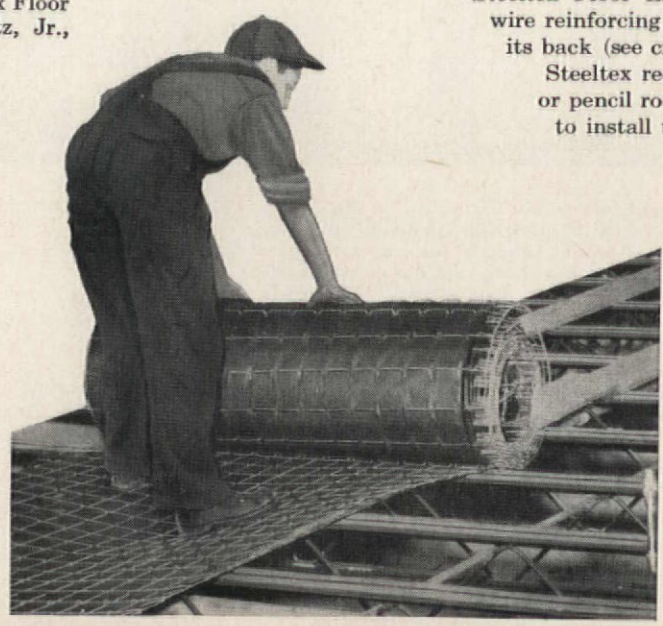
Steeltex requires no additional form or pencil rod reinforcing. It costs less to install than other types of forms



New 3-story addition to Shaler Township High School added 20 classrooms, upped accommodations from 750 to 1400 students, cost $1.35 million, has gym, auditorium, three shops, offices and locker. Steeltex Floor Lath on all floors. Charles M. & Edward Stotz, Jr., Architects. Geo. H. Chilli, Contractor.



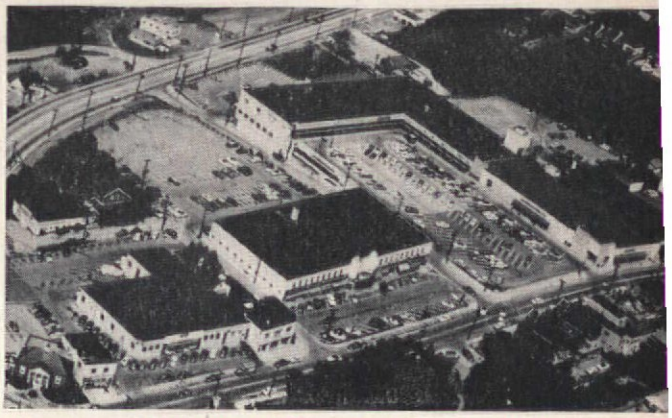
NOTE: In the cross section the weight of the wet concrete forces the backing away, which permits the galvanized steel mesh to assume its proper position in the slab. Steeltex floor lath also performs two other functions: It permits work on the floor below while pouring is in progress and retains moisture to assist proper curing.



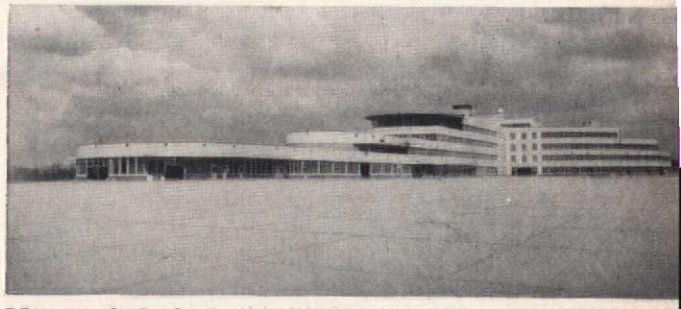
One man can roll out a 125′ roll of Steeltex in a few minutes. Steeltex provides both waterproof form and steel reinforcement for concrete floors, roofs.

The $3.5-million nurses home at University of Pittsburgh towers 14 stories, completely air conditioned, contains library, recreation room, reception rooms, cafeteria seating 400—comfortable living quarters for 600. Steeltex in upper floors. Ingham, Boyd & Pratt, Architects. Trimble Company, Contractors.

St. Clair Hospital, Mt. Lebanon Township, Pa., serving the growing South Hills area has 116 beds—cost $1.34 million. Steeltex used in all floors. Kuhn & Newcomer, Architects. R. A. Zern, Structural Engineer. H. Busse, Contractor.



Brentwood-Whitehall Shopping Center built on two levels has 25 shops in 210,000 square feet—80% are air conditioned—parks 1,000 cars. All floors reinforced with Steeltex. Forsyth & Blezard, Architects. Leland Cook, Structural Engineer. Landau Bros., Contractors.



Mammoth decks in this fabulous $10-million terminal building at $42-million Greater Pittsburgh Airport, were poured on Steeltex Floor Lath. Last year 2.5-million people including travelers spent $20 million at ticket counters, restaurants, nightclub, theater, hotel and shops. Joseph Hoover, Architect. Leland Cook, Structural Engineer. Dick Construction Co., Contractors.

Pittsburgh specify STEELTEX® floors and roofs

and reinforcement for concrete because Steeltex can be rolled out like a carpet, stretched with a special tool, and clipped tightly in place by one man (see photo below left).

Steeltex with its waterproofed backing also prevents waste of concrete by reducing leakage to a minimum from the freshly poured slab—craftsmen can continue working on the floor below without getting splattered. Expensive clean-up time is eliminated.

Steeltex insures a strong floor because embedment of steel reinforcing takes place automatically (see note below left). Steeltex allows concrete to cure slowly, properly—guards against excessive cracking—can be installed over any type of joist—will support ample safe loads from 109 to 886 lbs. per square foot depending on spacing of joists and thickness of slab. No wonder Steeltex has been the choice of architects, engineers, contractors, and building owners alike, not only in Pittsburgh but wherever concrete slabs are poured over joists.

If your building plans call for poured concrete floors, roofs, plaster walls or ceilings, masonry veneer or Portland cement (Stucco) exteriors, there's a type of Steeltex reinforcing that will do the job better, faster, with less effort at lower overall cost.

For complete details see the Steeltex catalog in Sweet's or write for your free copy of a new 24-page illustrated booklet "Pittsburgh Steeltex, Backbone of Concrete, Plaster, Mortar." It's yours for the asking.

STEELTEX®

manufactured by the

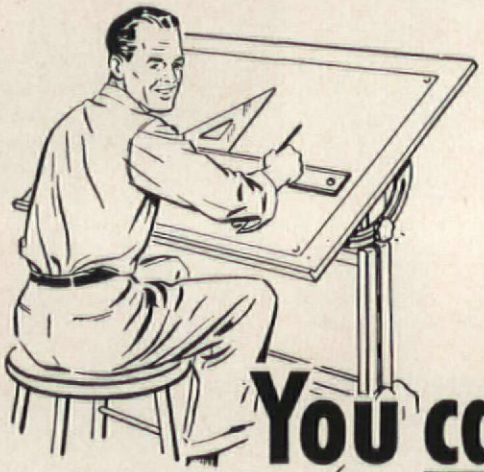
Pittsburgh Steel Products Company

a subsidiary of **Pittsburgh Steel Company**

Pittsburgh 30, Pa.

Here are other recent buildings in Pittsburgh and vicinity using Steeltex:

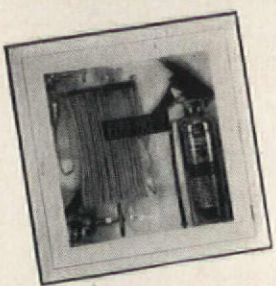
Amberson Gardens
Bedford Dwellings
Center-Negley Apartments
Greentree Apartments
Hebron Grade School
Kennilworth Apartments
Pennsylvania College for Women (Administration Building)
Shadyside Presbyterian Church (Chapel)
St. Augustine's High School
Talbot Towers (Housing Project)
Union Railroad (Office Building)
Westinghouse Educational School
Westinghouse Electric Corporation (Atomic Project Buildings)



You can't miss when you *Specify*

ALLENCO

1st* in Interior Fire Protection

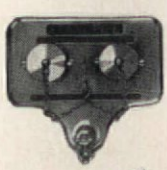


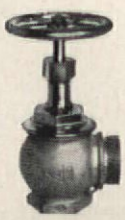
★ **Voted first choice by architects and engineers**
Annual surveys show ALLENCO is preferred 3 to 2 over next leading brand.

★ **Complete line, to meet *every* requirement**
Fire-fighting cabinet units and equipment, each in many forms.

★ **Easier selection of just what you want**
Each product, and its multiple forms; clearly defined to save your time.

★ **Proved reliability, known to all concerned**
Oldest line, probably most widely installed; well known by contractors, distributors, even "owners."





Ready Reference—12 page section in Sweet's

Consulting Service—gratis from 25 Sales Offices

A.I.A file 29e2—write for your copy, now

Established 1887

W. D. ALLEN Manufacturing Co.

CHICAGO 6 • NEW YORK 7

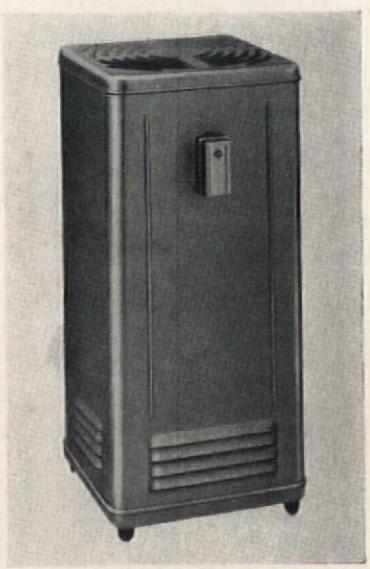
A E H PRODUCTS

(*Continued from page 246*)

enamel or baked porcelain enamel base with chrome column. A flat rim on the base permits chairs to fit under the table. The 1700 series is made in all sizes from oblong end base to 22-in. diameter for a 36-in.-square top. *L. & B. Products Corp. 233 Nevins St., Brooklyn 17, N. Y.*

IS DAMPNESS A PROBLEM?

A ⅕-hp dehumidifier, known as the *Aqua-Sorber HC 20*, features automatic control by means of a humidistat mounted on the cabinet. This instrument is activated by means of the moisture content in the air and sets the dehumidifier into operation only when needed. The Aqua-Sorber is reported to evaporate 50 per cent more water from the air by means of its ⅕-hp compressor. Hose connection is readily accessible hooking up to the drain for those who want completely automatic dehumidification. This unit is recommended for enclosed rooms and will serve an area up to 15,000 cu ft maintaining normal humidity conditions. The manufacturer suggests that this product is especially useful for use over weekends and vacations. *Walton Laboratories, Inc., 1186 Grove St., Irvington, N. J.*



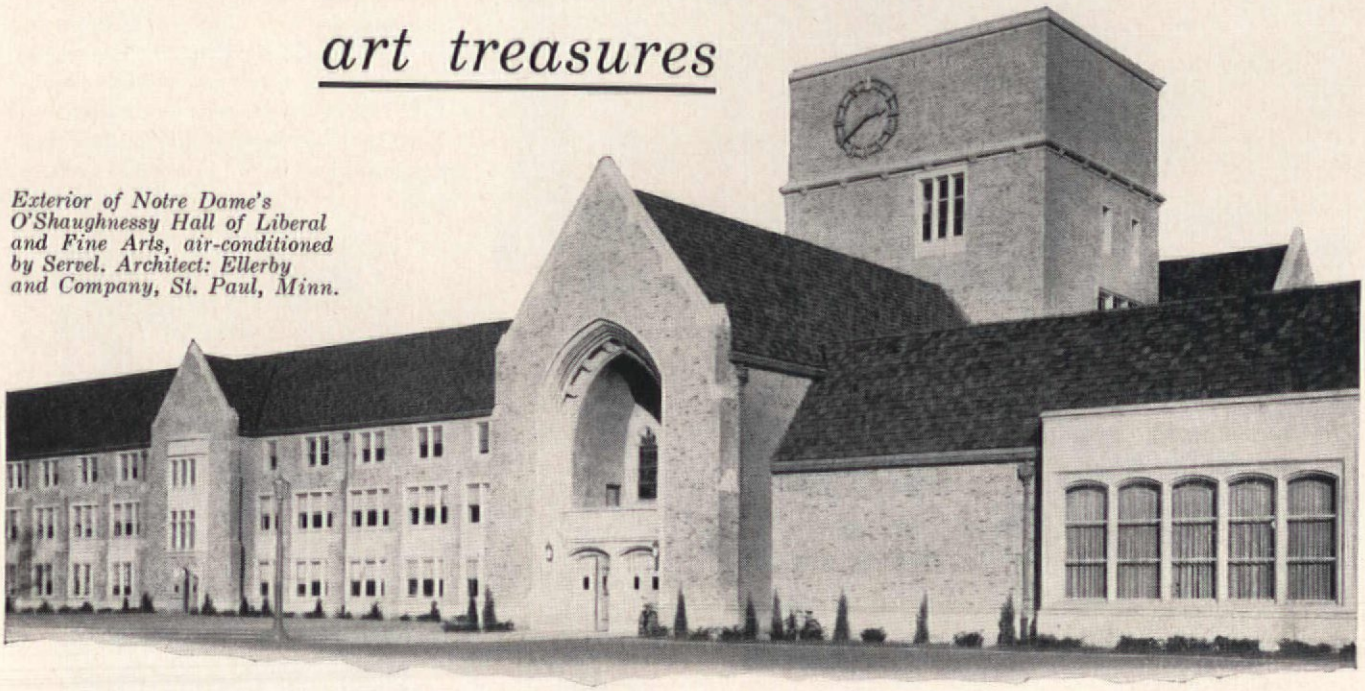
Humidistat mounted on cabinet of ⅕-hp dehumidizer automatically controls moisture

(*Continued on page 252*)

Servel Air Conditioning

protects Notre Dame's

art treasures



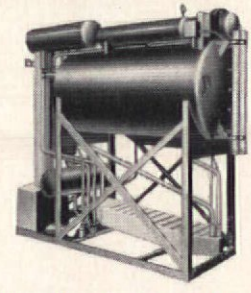
Exterior of Notre Dame's O'Shaughnessy Hall of Liberal and Fine Arts, air-conditioned by Servel. Architect: Ellerby and Company, St. Paul, Minn.

Only the most *perfect* "weather" is good enough! Fine old paintings that can never be duplicated must be carefully guarded from changes in temperature and humidity.

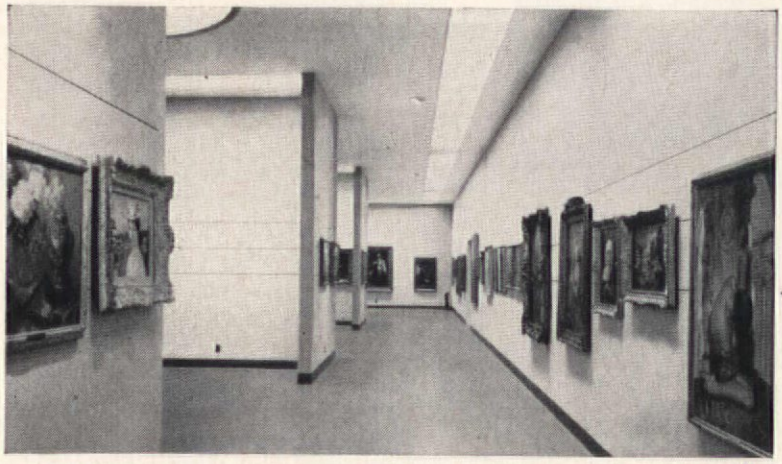
The valuable collection in the University of Notre Dame's O'Shaughnessy Hall Galleries is safely kept in a constantly controlled environment of optimum temperature and humidity. Selected for the job: two quiet, vibration-free Servel 25-ton Water Chillers. Low-cost operation is achieved by using steam from the central power plant.

You will find Servel Water Chillers ideal for many such installations. Since water is the refrigerant, simple piping replaces expensive ductwork; zone control is easy. No moving parts means quiet, vibrationless operation with less wear. Light floor loading permits installation almost anywhere.

And—perhaps most important—Servel Water Chillers operate on steam from *any* source . . . even waste heat! Send the coupon for information on Servel Air Conditioning for residential, institutional, industrial, or commercial applications.



The Servel 25-ton Water Chiller operates on the absorption principle of refrigeration—quietly, with no moving parts to wear or vibrate. It is light, easily installed. 5-year warranty.



Interior. You will recognize some of the valuable paintings here, protected from temperature and humidity changes by Servel 25-ton Water Chillers.

Servel

the name to watch for great advances in

AIR CONDITIONING ✓ REFRIGERATION

SERVEL, INC., Dept. AR-54, Evansville 20, Indiana

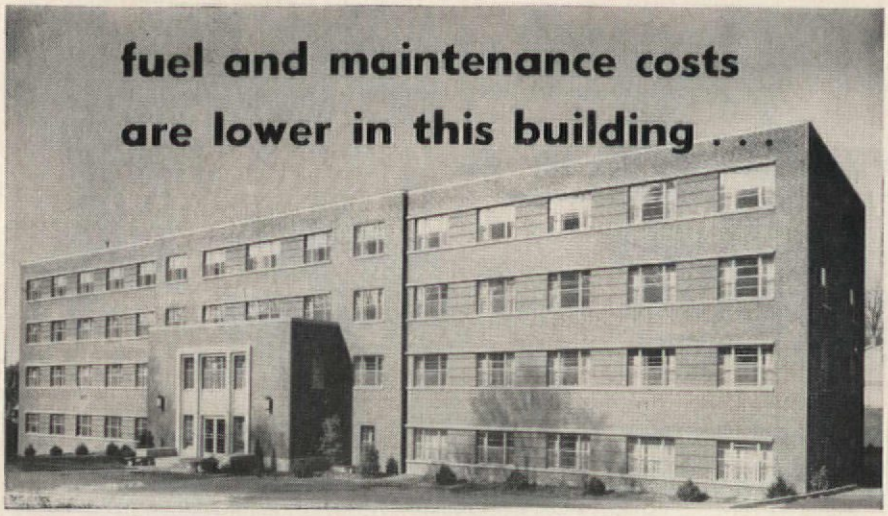
Please send information on Servel Air Conditioning for . . .

☐ Residential ☐ Institutional
☐ Commercial ☐ Industrial uses

Name_____

Address_____

City_____ County_____ State_____



. . . with

Nurses' Home, Meadville, Pa.
Architects: Wilbur Watson Associates
Cleveland, Ohio

Fleetlite

YEAR-'ROUND ALUMINUM DOUBLE, DOUBLE-HUNG WINDOW UNITS

NO STORAGE PROBLEMS
FREE FROM DRAFT AND STORMS
EASY CLEANING FROM WITHIN

In Meadville, Pennsylvania, Spencer Hospital Nurses' Home installed *over 300* Fleetlite Aluminum Window units more than three years ago. Mr. Noel Poux, President of the Board of Trustees, says, "We . . . find the windows entirely satisfactory, both in appearance and operation and are specifying them in a new addition to the hospital which is now being planned." Other hospital administrators, inspecting the Fleetlite installations at Spencer Hospital, were "very favorably impressed and expressed appreciation of the advantages" of Fleetlite Windows. Storm sash and screens are self-stored in each unit and are cleaned from inside. Double-window protection keeps out cold and exterior noise, lowers fuel costs by tight insulation. Sash can be adjusted for draft-free ventilation. Aluminum construction means no painting or puttying required.

For full information and detailed literature on how Fleetlite Windows can keep building expenses down, WRITE TODAY.

Fleetlite
AMERICA'S *Finest* WINDOW

Made by . . .

Territories open for representatives and dealers.

FLEET OF AMERICA, INC. 407 Dun Building, Buffalo 2, New York

AEH PRODUCTS

(*Continued from page 250*)

LUXURY IN DRAFTING TABLES

A new type of drawing table has been designed to keep all working areas of large drawings within comfortable reach. The drawing board is covered with a wide belt of flexible *Krene* (a product of the *Bakelite Division*, Union Carbide and Carbon Corp., N. Y.) attached to rollers mounted on the top and bottom edges.

Reference table, drawers and bookshelves are built into back of drawing table

Turning the bottom roller brings the drawing, taped to the belt, closer to the front board. Pressure from pen or pencil points will not make permanent grooves or ruts on the drawing surface — drafting tape adheres well yet is easily removed in re-usable condition from Krene, which resists most chemical action as well as wear, abrasion and moisture and can be cleaned with a damp cloth. A reference table, two large drawers for instruments and file folders, two bookshelves and a large shelf for rolled or flat drawings are built into the rear of this drafting room furniture. The 36- by 60-in. drafting board is adjustable for height and slope and adaptable for drafting machine, parallel line attachment or T-square. A reference table slides out on cantilevered supports at regulation desk level. Drawers and other moving parts are mounted on ball bearings. The table, constructed with welded steel tubing frame, permits easy cleaning of the floor under the table. *Tecnibord Co., 85 South St., Boston 11, Mass.*

(*Continued on page 256*)

Vina-Lux floors for carefree living...

Vina-Lux catches the eye and captures the heart with its high-style colors and lustrous shining surface. It is the perfect backdrop for today's fabrics and furniture. And Vina-Lux floors add greatly to *streamlined living.* You can clean them without hard scrubbing, and be proud of their appearance without waxing them. After working on Vina-Lux, your legs will tell you how resilient and foot-easy this remarkable floor can be. It's as tough as fine leather, too — virtually unaffected by greases, oils, and most common household products. More and more architects are finding Vina-Lux the final answer to their clients' floor problems.

Why don't you investigate America's leading vinyl-asbestos tile — Vina-Lux!

For a closer look at this suberb flooring, write today for Vina-Lux Color Chart. Your nearest Azrock dealer will be glad to show you samples. Write for his name.

Vina-Lux®

REINFORCED VINYL TILE

AZROCK PRODUCTS DIVISION • UVALDE ROCK ASPHALT CO.
FROST BANK BUILDING • SAN ANTONIO, TEXAS
MAKERS OF VINA-LUX • AZROCK • DURACO • AZPHLEX

BARBER COLMAN

ELECTRIC

Automatic Controls

...provide individual room temperature controls for guests at BRIKCRETE MOTEL in Grand Rapids, Michigan

Designer: (for original building) Gerald Diekema, Grand Rapids, Michigan. Architect: (for addition) Alwin S. Kolm, East Lansing, Mich. Heating Contractor: Knee Heating Co., Grand Rapids, Mich.

14-room addition to Brikcrete Motel, completed in 1953. Each room has its own Barber-Colman Thermostat, permitting each guest to adjust the temperature to his needs.

Smart, modern Brikcrete Motel in Grand Rapids attracted so much traffic a fourteen-room addition became necessary. Original building shown above houses lobby, office, and eleven guest rooms, plus manager's quarters on second floor. Zone control in this building will be changed to individual room control as used in new addition (right)

Restful main lobby of this unique motel provides guests with comfortable seating arrangements, plus television. Entire motel is constructed of Brikcrete, called "the world's most modern masonry."

Simplest possible type of heating control was installed in this excellent example of present-day motel design. Individual room thermostats, motor-operated valves, and a power box are combined in an electrical system which has proved highly satisfactory. As Mrs. Degi, manager, states: "The individual control of heat in each room allows our guests to select the temperature they like best. It also allows us to turn off the heat in unused rooms during our slack season. We are impressed with the efficiency of operation and hope to install Barber-Colman units in our original building." Moreover, Mrs. Degi is considering a central time clock for reducing heat supply during sleeping hours, when many windows are open.

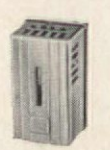
Flexible Barber-Colman electric controls solve a wide range of heating, cooling, and ventilating problems efficiently and economically. Phone your nearest Field Office or write for expert engineering help on *your* application.

BARBER-COLMAN COMPANY, ROCKFORD, ILL., U.S.A.

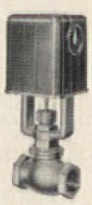
Dept. E, 1304 Rock St. • Field offices in principal cities

Automatic Controls • Air Distribution Products • Industrial Instruments • Aircraft Controls • Small Motors • Overdoors and Operators • Molded Products • Metal Cutting Tools • Machine Tools • Textile Machinery

Color-personalized guest rooms have attractive, modern appointments, including adjustable control of heat radiated from baseboard. Mrs. Marie Degi, manager, adjusts Barber-Colman Thermostat mounted on soundproof wall.



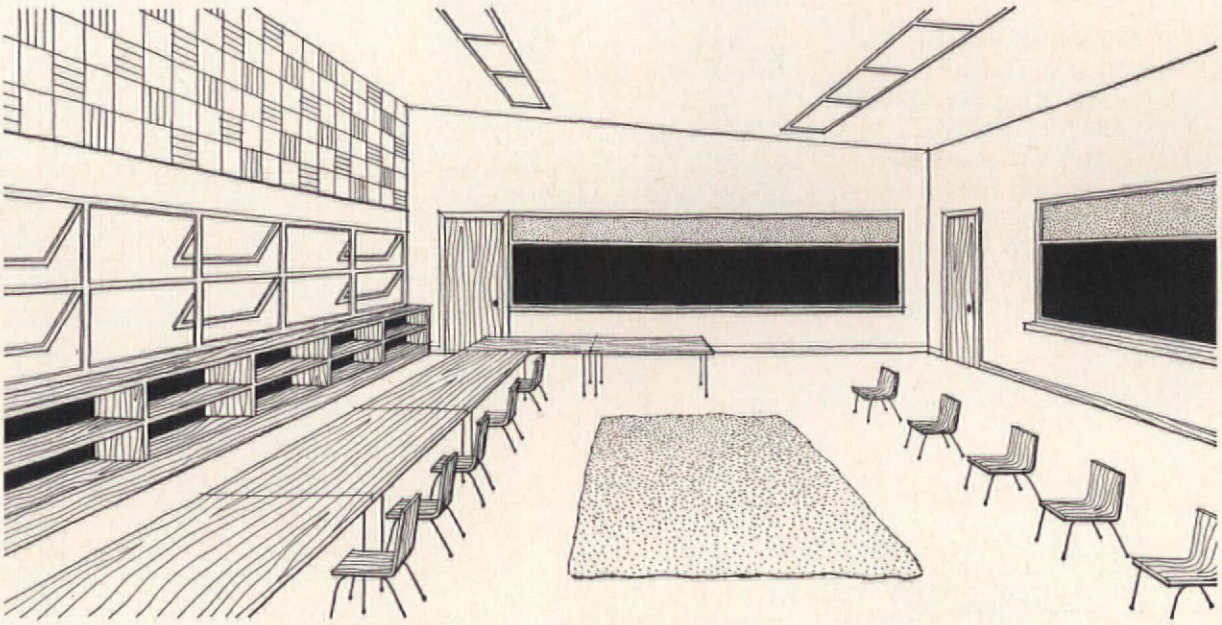
Heat-anticipating Room Thermostat



Motor-operated Valve

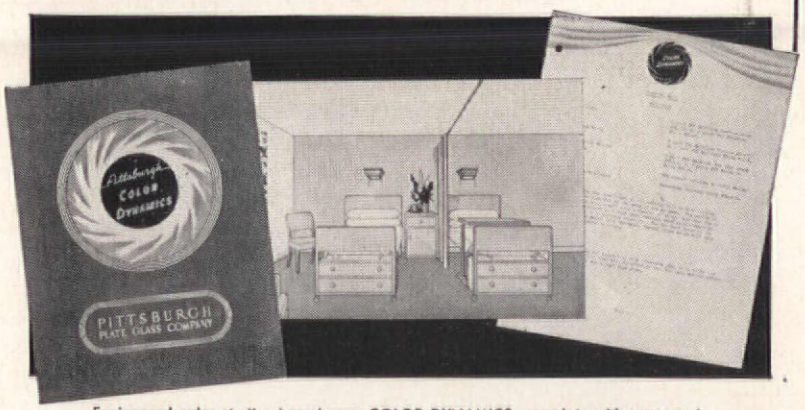
Power Box Cabinet

Oil-fired boiler provides hot water (two-pipe system) for heating, washing, bathing, and laundry facilities. Barber-Colman equipment illustrated provides simple, dependable, individual room comfort. Inside Power Box Cabinet are a transformer, disconnect switch, and an overload circuit breaker.



You'll Make Your Plans More Acceptable

By Adding an Engineered Color Study!



Engineered color studies based upon COLOR DYNAMICS, complete with suggested color samples, are bound in booklet form. Also included are recommendations for the correct types of coating to be used on every kind of material and construction.

THE importance of the effect of color environment on people is today recognized by practically everyone who owns or operates an industrial, commercial or service enterprise.

● **That's why** you can make your plans more acceptable to clients by including a detailed color program.

● **Why not let us submit** *engineered* color recommendations to go with your plans? These recommendations are based upon the principles of COLOR DYNAMICS®. This modern system of painting has demonstrated its ability to improve productive efficiency, morale and well-being in many fields.

● **We'll be glad to** make such a detailed study without cost or obligation. Simply call your nearest Pittsburgh Plate Glass Company branch and arrange to have one of our color consultants see you at your convenience. Or mail this coupon.

For Additional information on COLOR DYNAMICS see Sweet's Architectural File, Section 14/Pi.

MAIL THIS COUPON TODAY

Pittsburgh Plate Glass Company
Paint Division, Dept. AR-54
Pittsburgh 22, Pa.

Gentlemen:

☐ Please have your representative provide us with further information about Pittsburgh's Free COLOR DYNAMICS engineering service for architects.

☐ Please send free copy of your booklet on COLOR DYNAMICS for ____industry; ____hospitals; ____schools; ____commercial buildings.

NAME_____

ADDRESS_____

CITY_____ COUNTY_____ STATE_____

PITTSBURGH PAINTS

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

(*Continued from page 252*)

NEW GARBAGE DISPOSAL UNIT

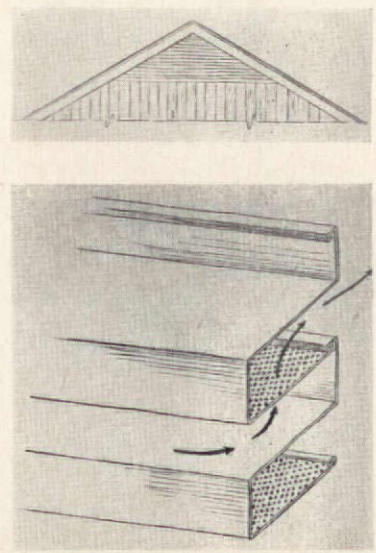
The *Bard-Matic Garbage Eliminator* system offers a new method of solving the garbage disposal problem. The system is contained in an upper cone-shaped steel unit and a lower open-ended steel cylinder, installed in any convenient spot in the yard by digging an 18-in.-deep round hole for the lower section. Unwrapped garbage, including bones, eggshells, meat scraps and fruit rinds, is placed in the *transfer container*, which is kept near the sink and can be transferred to the Eliminator when necessary. *Catalytic starter*, furnished with the system, is used to start the disposal action. It is to be used on the first garbage deposit only — no additional starter need be added at any time. *Control chemical*, a liquid concentrate known as San Elim, not essential to the operation of the Bard-Matic Eliminator under normal conditions, can be used to combat offensive odors and insects.

Garbage eliminator is installed over 18-in.-deep hole

The manufacturer warns that glass, metal, cloth or paper should never be placed in the unit. *Bardmatic Corp., Muskegon, Mich.*

METAL VENTILATING LOUVER

Luv-O-Metal is a new interlocking structural shape which can be integrated to form ventilating panels. Solid on top to keep out weather and insects, and ventilated on the bottom, the panels can be used as gable louvers and other sheathing sections where ventilation is desirable.

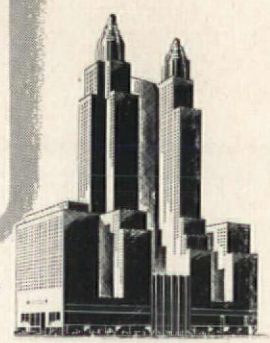


Lightweight aluminum louvers interlock securely, protect against weather and insects while providing ventilation

In appearance like the conventional wood slat louver, Luv-O-Metal is said to be stronger and more weatherproof, especially against rain and snow blown by high winds. Made of aluminum and produced in standard lengths of 2, 4, 6, and 8 ft, the louvers can be cut with ordinary woodworking tools. *Marvin W. Coleman, 4140 Syracuse, Dearborn, Mich.*

(*Continued on page 260*)

p·k warms your "Week-end at the Waldorf"



Travellers from all over the world enjoy luxury living at the famous Waldorf-Astoria Hotel on New York's Park Avenue.

Contributing to this luxury is a dependable source of clean hot water—enough for a town of 10,000 people who fill the Waldorf's 2200 guest rooms and public halls. Abundant, pure, rust-free hot water is always on tap direct from **p·k** copper-lined hot water storage heaters.

These heaters are really two heaters in one. Inside a heavy steel shell is a complete copper heater. Thus all the non-corrosive and durable qualities of copper are combined with the superior strength of steel. Water touches only non-rusting copper.

p·k's 73 years of experience gives you two things—a satisfactory product and a sound guarantee. Why not learn more about **p·k** copper-lined heaters. Write on your company letterhead for **p·k** bulletin No. 18.

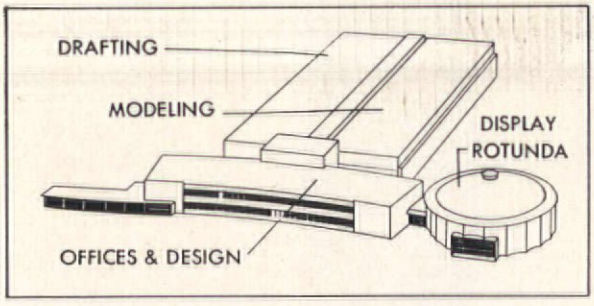
the **Patterson-Kelley Co.,** inc.
1950 Burson Street, East Stroudsburg, Penn.

101 Park Avenue, New York 17 • Railway Exchange Building, Chicago 4 • 1700 Walnut Street, Philadelphia 3 • 96-A Huntington Avenue, Boston 16 • and other principal cities.

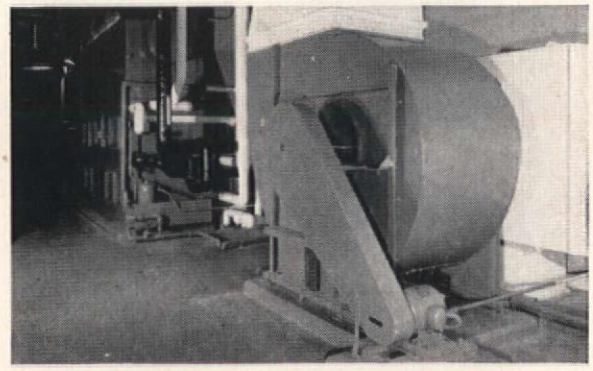
2511

Advanced Styling Section of Ford Motor Company's new $11.5 million Styling Building, Dearborn, Michigan.

Ford "dream shop" has built-in climate!



The design-office wing and display rotunda are served by a central system. It includes: 7 supply fans; 34 exhaust fans; heating and cooling coils and sprayed-coil dehumidifiers — all furnished by American Blower.



Air for drafting rooms and modeling studios is conditioned by 24 specially built, automatically controlled American Blower Air-Conditioning Units. Each unit contains heating and cooling coils and capillary air washers.

This "dream shop" at the Ford Engineering Staff's Advanced Styling Section is just one of many styling areas which depend on clean, conditioned air.

For example, in 12 roomy studios clay-modeling teams work under lights which produce shadowless illumination — and intense heat! To absorb this heat and provide the proper climate for working with clay models, specially designed air-conditioning systems were installed for each studio and drafting room. American Blower Air Handling and Air-Conditioning Equipment was used for this unusual assignment.

The expert know-how of American Blower engineers is on tap for industry at all times. If you have an air-handling or air-conditioning problem, phone your nearest American Blower or Canadian Sirocco Branch Office.

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO
Division of American Radiator & Standard Sanitary Corporation

AMERICAN BLOWER

Serving home and industry:
AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • KEWANEE BOILERS • ROSS EXCHANGERS • SUNBEAM AIR CONDITIONERS

THE STRONGEST ENDORSEMENT EVER GAVE AN ARCHITECTURAL

Almost twenty-six thousand architects and engineers now subscribe to Architectural Record.

Never before has an architectural magazine made accessible to advertisers so many of the architects and so many of the engineers whose designs and specifications determine which building products four out of five of the nation's building dollars will buy.

Periodic checks of *Dodge Reports* of building activity (available exclusively to Architectural Record), show that over 85% of the total dollar volume of *all* architect- and engineer-designed building, nonresidential and residential, small and large, is currently in the hands of Architectural Record's architect and engineer subscribers.

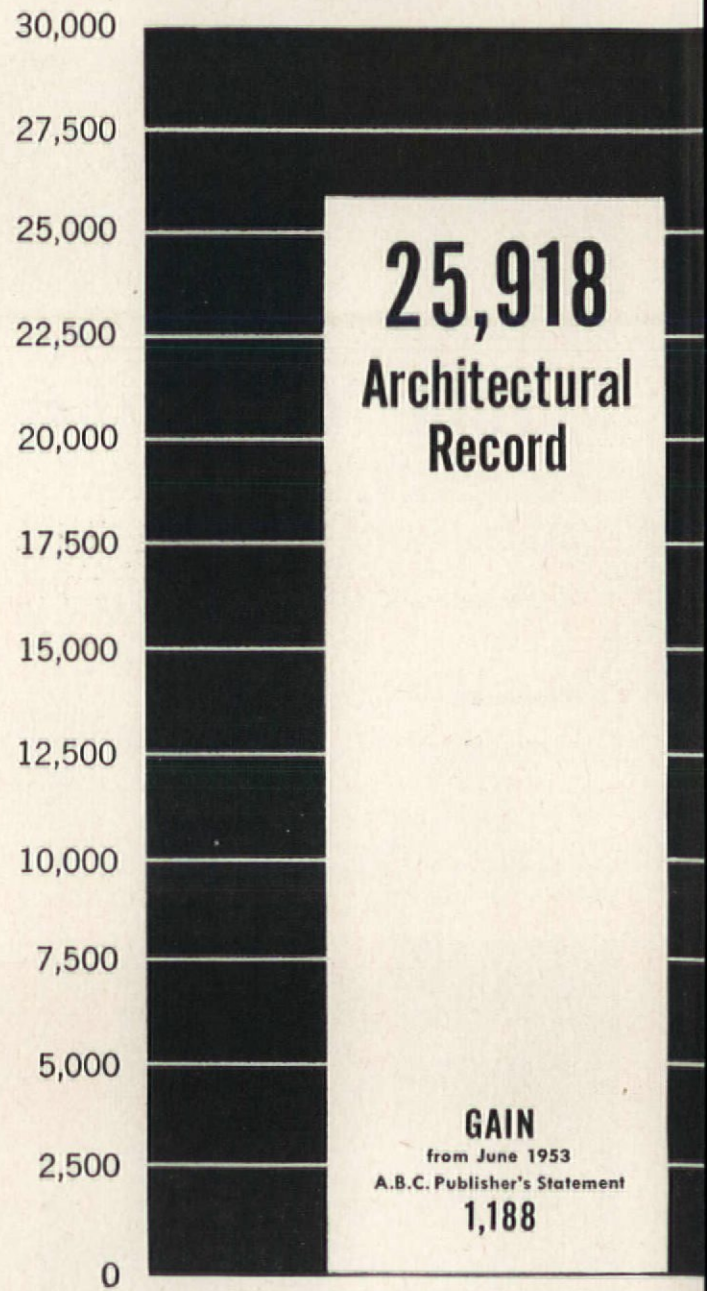
This unequalled and verifiable market coverage results from an editorial service that is unique.

Architectural Record *balances* and *times* its editorial content with the aid of *Dodge Reports* to be of constant maximum value to architects and engineers in terms of the work on their boards—serves the *full range* of architectural design, nonresidential and residential, that comprises the practice of architects and engineers—edits every page of every issue *specifically* for architects and engineers.

That is why architects and engineers have voted Architectural Record their preferred magazine in 55 out of 62 readership studies SPONSORED BY BUILDING PRODUCT MANUFACTURERS AND ADVERTISING AGENCIES. (*Ask for the interesting new summary of these studies.*)

Advertisers, too, endorse Architectural Record above all other magazines in its field.

In 1953 Architectural Record carried 2,931 pages of advertising—an all-time high for architectural magazines—and *again in 1954* advertisers are placing primary reliance on Architectural Record.



F.W. DODGE CORPORATION **Architectural Record** "Workbook of the active architect and engineer"

F. W. Dodge Corporation, 119 West 40th Street
New York 18, N. Y. • OXford 5-3000

ARCHITECTS AND ENGINEERS MAGAZINE

Total Architect and Engineer Circulation

based on December 1953 A.B.C. Publisher's Statements

Comprising all "Subscriptions in Company Name, Owners & Corporate Executives, General Managers & Managers" in Classification 1 ("Architectural, Architectural-Engineering Firms & Architects & Architect-Engineers in Private Practice") and Classification 2 ("Consulting Engineering Firms & Engineers in Private Practice"), plus "Registered Staff Architects" and "Staff Engineers" in all Business & Industry Classifications.

24,642
Progressive Architecture

LOSS
from June 1953
A.B.C. Publisher's Statement
33

13,555
Architectural Forum

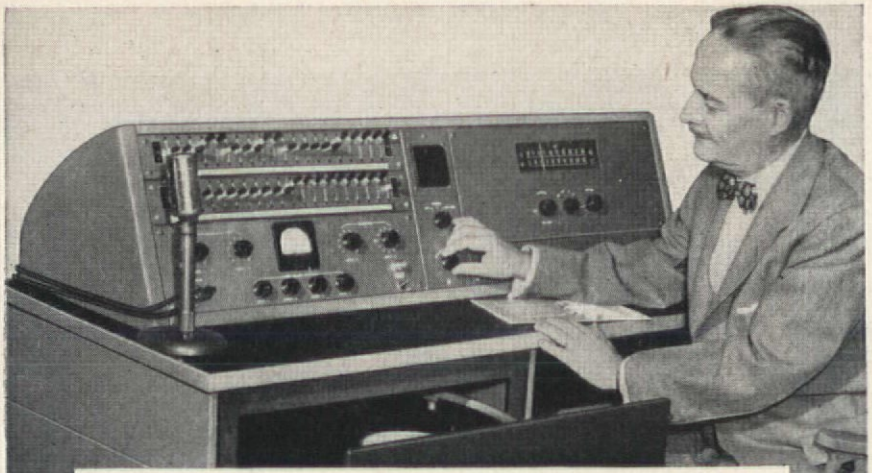
LOSS
from June 1953
A.B.C. Publisher's Statement
381

(*Continued from page 256*)

NEW BELLS LIKE OLD

Cast bronze bells with an "old-time" quality are molded according to new methods and tuned in the modern manner — by means of electronic measuring instruments — by *Eijsbouts-Lips* in Holland. In addition to modern methods of production, Eijsbouts supplies electrical bell-ringing apparatus which re-creates tones exactly as if the bell were being rung by hand. The ringers are designed for ringing when desired or they are attached to clock mechanisms for ringing the hours. Eijsbouts-Lips also makes tower clocks, electrical master clock systems for regulating and setting tower clocks, and electrical playing devices for carillons. *Nederlandse-Klokkengieterij B. Eijsbouts-Lips, Asten, Holland.*

(*Above*) Modern electrical bell-analyzing equipment. (*Right*) Automatic bell ringer which sounds like hand ringing



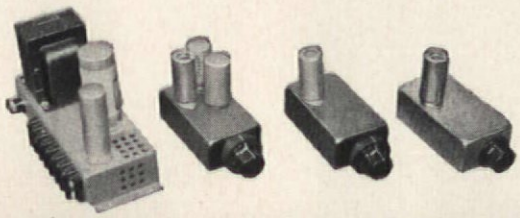
RCA SOUND SYSTEMS
for the GROWING building

Modular Design of RCA's new Rainbow Line of sound equipment now answers your two big problems in planning sound systems for new construction.

1. **Flexibility** for the building which will expand its facilities in the years ahead.
2. **Speedier Assembly** of custom-built equipment for any specification you write.

Plug-in units of the RCA Rainbow Line, and RCA's practical, unitized cabinets now make RCA Sound Systems your best bet for easy design, for ready client acceptance.

For information on RCA Sound Products, write for the new, RCA SOUND PRODUCTS catalog. Sound Products, Radio Corporation of America, Dept. E-13, Building 15-1, Camden, N. J.



RCA ® RADIO CORPORATION of AMERICA
SOUND PRODUCTS CAMDEN, N.J.

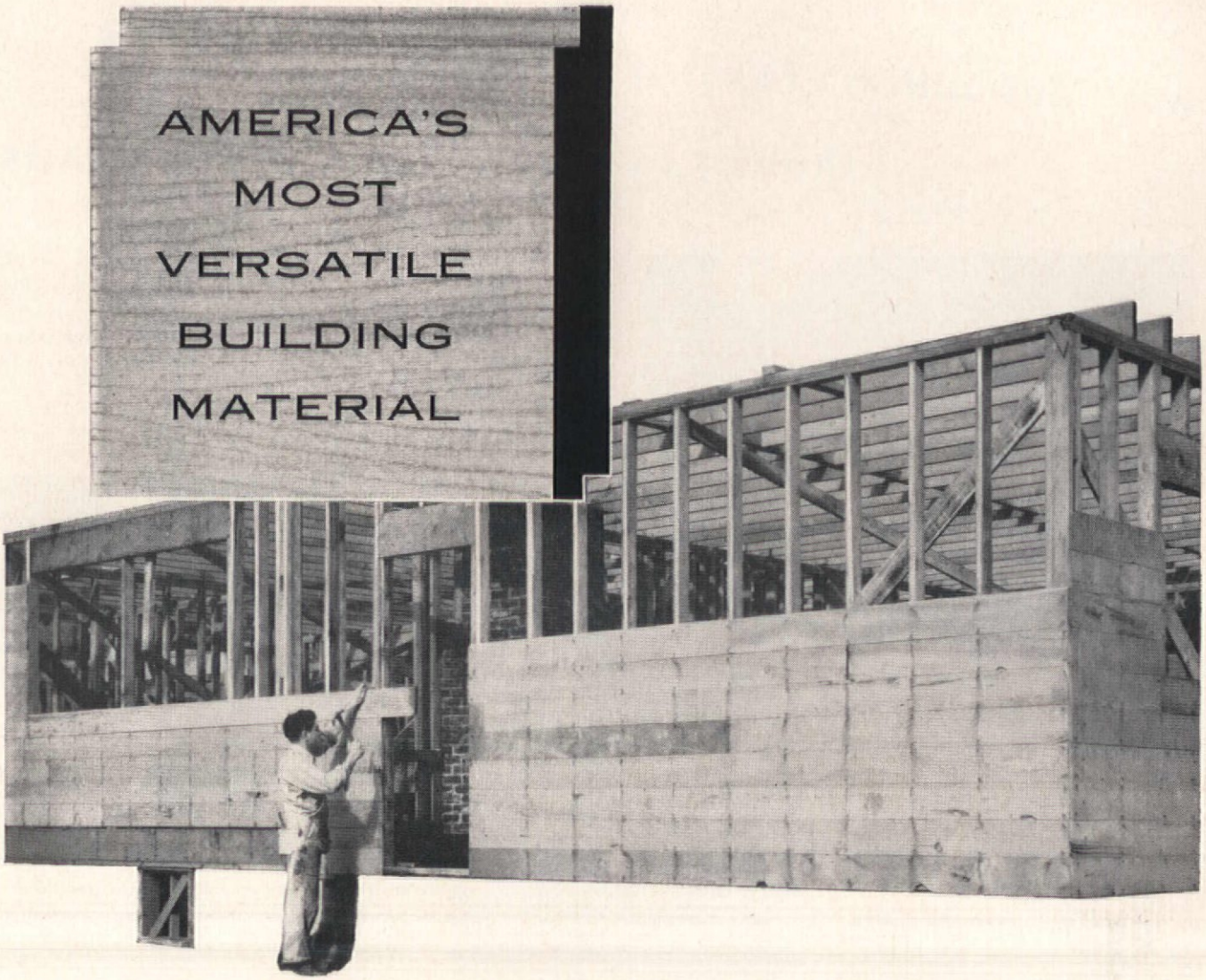
PLANNING AID FOR DAYLIGHT INCIDENCE

The *Horizontoscope* — a handy semi-spherical device only 4¼ in. in diameter — is a novel planning aid in determining sunlight and daylight conditions and solar heat in existing and projected buildings. The scope, with circular charts corresponding to the latitude under the transparent plastic cover, is held horizontally at the site to be investigated and viewed from above. The sky area which is mirrored in the cover, as read on the charts, provides information which answers the following questions:

1. When and how long does a site get sunlight?
2. What insulation does a projected building receive through the window when the sky is clear?
3. What shadows do neighboring buildings, trees, etc., cast?
4. How much daylight should be expected on a level or vertical surface in a room when the sky is overcast?

When plans are being made for projected structures, the mirrored images to be expected at the real site can be obtained on the model or with the aid of an auxiliary chart. *Friedrich Tonne, Dipl.-Ing.-Architekt, Stuttgart-N, Robert-Haug-Weg 9, Germany.* (*F. H. Paul & Stein Bros., Inc., 100 Gold St., New York 38, N. Y.*)

(*Continued on page 264*)

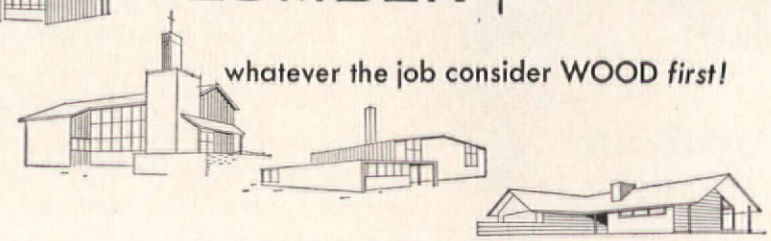


Sheathing of West Coast lumber — the building material with an outstanding record of performance — assures walls that are strong, rigid and long lasting. Lumber offers high insulating value, real nail-holding power. West Coast lumber is time-tested in conventional construction. And, as always, it remains the natural choice of the day's most creative designers.

For dependable lumber, specify the West Coast species...Douglas Fir, West Coast Hemlock, Western Red Cedar and Sitka Spruce.

Send for folder describing free literature available for your reference files. West Coast Lumbermen's Assn., 1410 S. W. Morrison St., Portland 5, Ore.

WEST COAST LUMBER | **Douglas Fir • West Coast Hemlock**
Western Red Cedar • Sitka Spruce

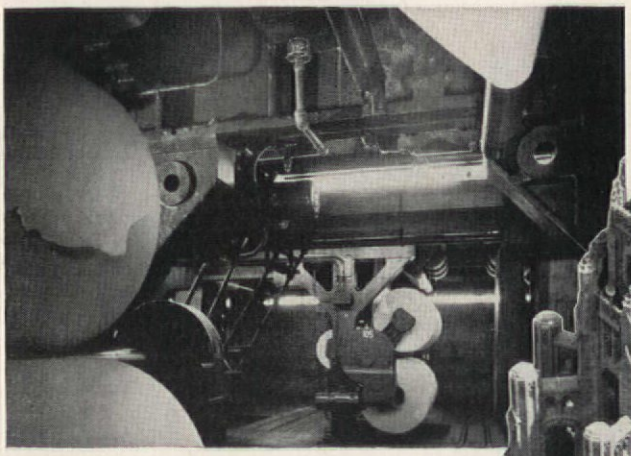


whatever the job consider WOOD *first!*

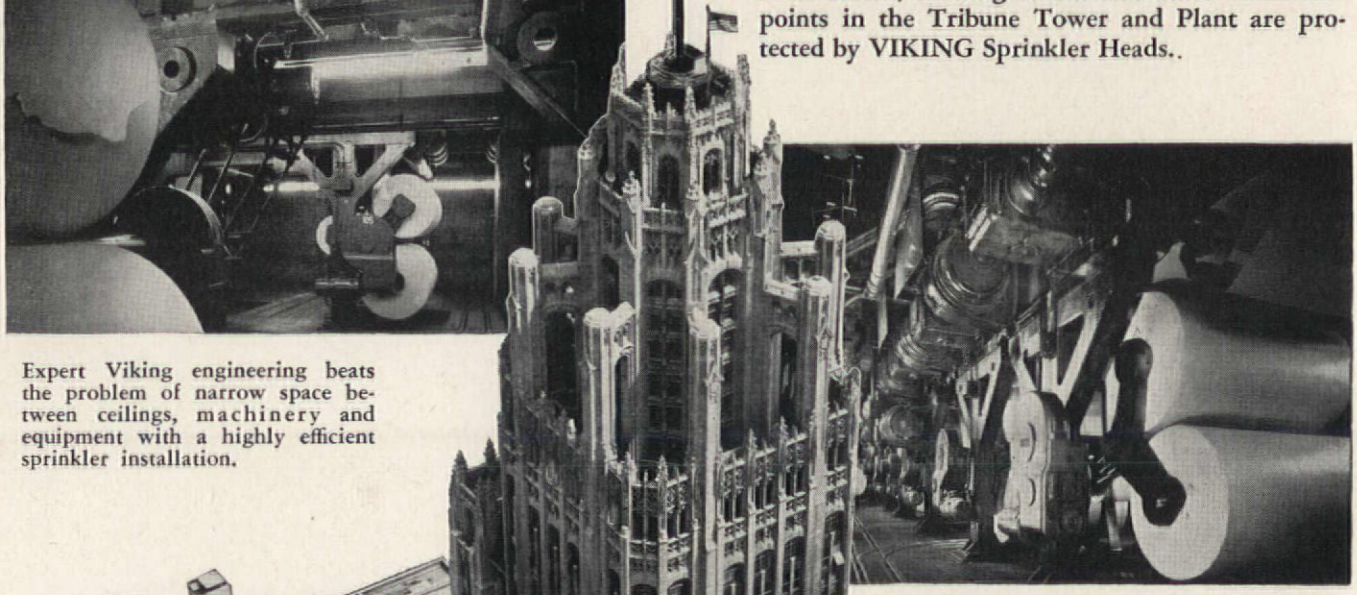
no "four alarm" fires at the CHICAGO TRIBUNE

thanks to VIKING SPRINKLER HEADS

The Chicago Tribune is insured against "four alarm" fires with a Viking Automatic Sprinkler installation. Each Paper Storage Area, Reel Room, Press Room, Mailing Room and other vulnerable points in the Tribune Tower and Plant are protected by VIKING Sprinkler Heads..



Expert Viking engineering beats the problem of narrow space between ceilings, machinery and equipment with a highly efficient sprinkler installation.



The entire Sprinkler System was prefabricated and installed by Viking so it would not interfere with high speed Reel and Press Room operations.

This efficient protection was proved one day, when a molten piece of metal, from welding apparatus being used by an outside contractor, fell into the paper in a raceway between the paper reels. Within seconds a fire started. One VIKING Sprinkler opened and immediately extinguished the blaze. The presses were running again within ten minutes and a possible "four alarm" fire was stopped before it started. Without the VIKING protection it is probable that the entire Press and Reel Rooms might have been out of service for an extensive period of time, and the lower structure of the Tribune Building could have been seriously damaged.

THE VIKING CORPORATION, Hastings, Michigan
Without obligation. Send me the new 16-page VIKING Brochure "FIRE AND YOUR BUSINESS" ( )
Have my nearest VIKING REPRESENTATIVE call ( )

Name.....

Title.....

Company.....

Address.....

City.....State.....

the VIKING corporation
HASTINGS, MICHIGAN
OFFICES IN PRINCIPAL CITIES

There's a VIKING MAN Ready to Serve You — as close as Your Telephone!

CRAWFORD and SLATEN CO.
Mr. J. Cousart, Atlanta, Ga.

VIKING AUTOMATIC SPRINKLER CO.
Mr. J. M. Cashman, Boston, Mass.

VIKING AUTOMATIC SPRINKLERS, INC.
Mr. H. B. Kirkman, Buffalo, N. Y.

VIKING AUTOMATIC SPRINKLER CO.
Mr. H. F. Grenning, Mr. C. W. Hauth, Mr. H. Hartel, Chicago, Ill.

VIKING SPRINKLER CO.
Mr. W. H. Bihlman, Cincinnati, Ohio

VIKING SPRINKLER CO.
Mr. O. H. Gellhaus, Cleveland, Ohio

VIKING SPRINKLER CO.
Mr. O. H. Fateley, Indianapolis, Ind.

VIKING SPRINKLER CO.
Mr. P. A. Stevens, Louisville, Ky.

TEXAS AUTOMATIC SPRINKLER CO.
Mr. J. E. Bush, Mr. Rainey Westberry, Dallas, Texas

TEXAS AUTOMATIC SPRINKLER CO.
Mr. J. B. Manning, Houston, Texas

TEXAS AUTOMATIC SPRINKLER CO.
Mr. J. H. Westberry, San Antonio, Texas

TEXAS AUTOMATIC SPRINKLER CO.
Mr. F. E. Westberry, Memphis, Tennessee

TEXAS AUTOMATIC SPRINKLER CO.
Mr. T. J. Kainz, Jackson, Mississippi

TEXAS AUTOMATIC SPRINKLER CO.
Mr. L. E. Edwards, New Orleans, La.

TEXAS AUTOMATIC SPRINKLER CO.
Mr. L. D. McCraw, N. Little Rock, Arkansas

TEXAS AUTOMATIC SPRINKLER CO.
Mr. J. C. Watkins, Oklahoma City, Oklahoma

TEXAS AUTOMATIC SPRINKLER CO.
Mr. D. W. Smith, Tulsa, Oklahoma

VIKING SPRINKLER CO.
Mr. W. I. MacGinnis, Detroit, Mich.

VIKING SPRINKLER CO. OF WESTERN MICH.
Mr. G. C. Hansen, Grand Rapids, Michigan

VIKING SPRINKLER CO.
Mr. G. T. Gregory, High Point, N. C.

VIKING SPRINKLER CO.
Mr. T. D. Comery, Richmond, Va.

C. W. HUTCHINSON, INC.
Mr. C. W. Hutchinson, Huntington, W. Va.

WALTON VIKING CO.
Mr. J. E. Johnson, Kansas City, Kansas

WALTON VIKING CO.
Mr. C. E. Turner, St. Louis, Mo.

WALTON VIKING CO.
Mr. John Carroll, Omaha, Neb.

WALTON VIKING CO.
Mr. B. W. Young, Denver 20, Colorado

CALIFORNIA VIKING SPRINKLER CO.
Mr. R. L. Thorsdale, Jr., Los Angeles, Calif.

CALIFORNIA VIKING SPRINKLER CO.
Mr. R. H. Crawhall, San Francisco, Calif.

VIKING SPRINKLER CO.
Mr. G. B. Higgins, New York, N. Y.

VIKING SPRINKLER CO.
Mr. A. C. Rudin, Hillside, N.J.

VIKING SPRINKLER CO.
Mr. J. H. Keelan, Jr., Philadelphia, Pennsylvania

VIKING SPRINKLER CO.
Mr. T. F. Smith, Washington, D. C.

VIKING AUTOMATIC SPRINKLER CO.
Mr. R. L. Thorsdale, Mr. L. R. Carlson, Seattle, Washington

VIKING AUTOMATIC SPRINKLER CO.
Mr. J. W. Larson, Portland, Oregon

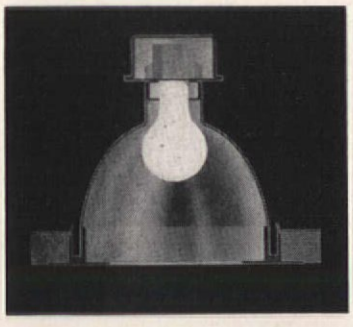
VIKING AUTOMATIC SPRINKLER CO.
Mr. H. McDonald, Vancouver, B. C.

HUDSON VIKING SPRINKLER CO.
Mr. H. A. Westenburg, St. Paul, Minn.

VIKING AUTOMATIC SPRINKLERS (CANADA) LTD.
Mr. R. G. Wallace, Toronto, Ontario

THE VIKING CORPORATION
Mr. J. W. Radford, Mr. Frank A. Rider, Hastings, Michigan

no other recessed lighting instrument offers all the practical advantages of Century's series 930 ellipsoidal Downlite . . . compact, low in cost, uses general service lamps . . . bulb just screws in from below—no plate to open . . . eye comfort is assured by the extremely low brightness of the opening—which is small . . . the bottom of the unit is absolutely flat and smooth (no bumps in the ceiling plane) and the precision reflector is Alzak Processed for permanent efficiency



CENTURY LIGHTING, INC.,
521 WEST 43RD STREET
NEW YORK 18

626 NORTH ROBERTSON
BOULEVARD,
LOS ANGELES 46

SPLASHED WITH OIL . . .

ALGRIP

still remains Non-Slip!

It occurs every day. ALGRIP Abrasive Rolled Steel Floor Plate is installed—then insurance premiums tumble—slipping accidents stop.

The reason is tough steel floor plate *impregnated uniformly* with abrasive "grinding wheel" grain. Result: A truly non-skid surface that *stays* slip-proof, because wear only exposes new particles . . . a "safety extra" offered only by ALGRIP.

If your accident insurance premiums are too high, let ALGRIP bring them down. Mail this coupon today for the complete ALGRIP story. There's no cost or obligation.

Underwriters' Laboratories approved for safety. Note depth and uniformity of abrasive grain.

A.W. ALGRIP Abrasive Rolled Steel Floor Plate

ALAN WOOD STEEL COMPANY
CONSHOHOCKEN, PA.

Please send Booklet AL-19 on how ALGRIP can cut costs and accidents:

NAME_____ TITLE_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____

AIA PRODUCTS

(Continued from page 260)

SHOP-FABRICATED BUILDINGS

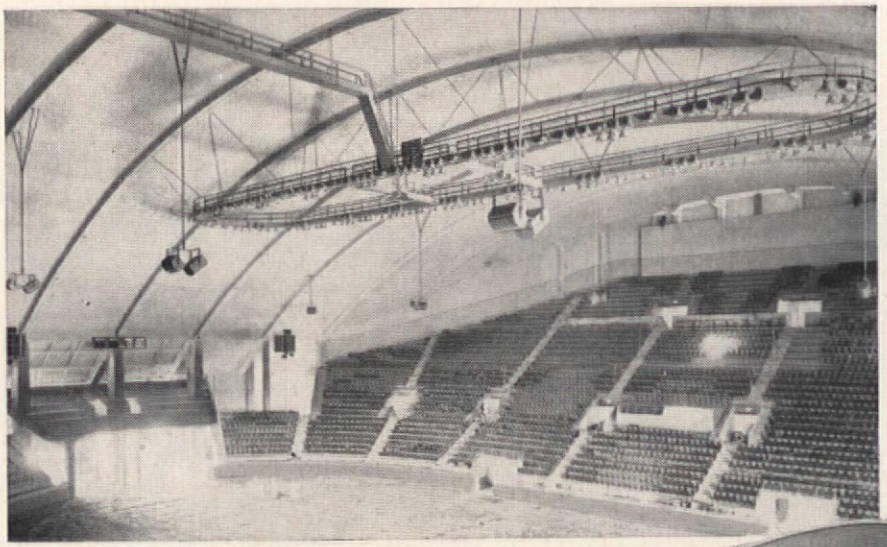
A new all-steel building — the *Utilimaster* — is shop-fabricated and predesigned for maximum speed, economy and simplicity in erection. The building features a "rigid frame" construction which eliminates overhead interference from trusses and braces and provides unobstructed clearance all the way to the roof for machinery, equipment and material storage. It is supplied in 40-, 50- and 60-ft clear spans, in any length and in single units or in side-by-side "multigable" arrangements. The basic Utilimaster framework can be used in combination with concrete block, brick and precast concrete walls and a wide variety of other building materials.

Shop-fabricated all-steel building is predesigned for ease of erection

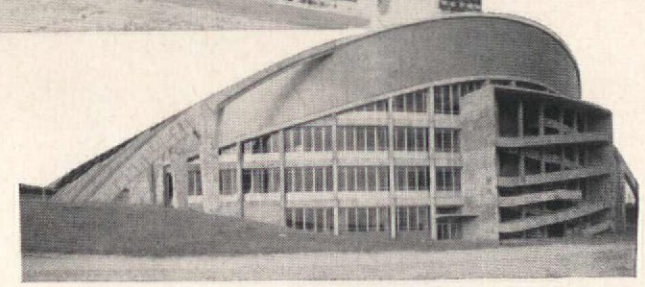
Standardized, mass-produced parts are used throughout the Utilimaster. All parts are shipped from the factory completely fabricated and cut to exact size so that no field cutting, burning or welding parts is required. The strong, lightweight rigid bents are lifted into position on hinged base shoes with a light-duty crane. Roof sheets and roof insulation are installed from above so that no interior scaffolding or crew is required. Interior structural members are shop-painted and all exterior steel parts are galvanized for rust prevention. Reports indicate that a typical 50- by 100-ft Utilimaster can be erected in 10 working days.

Standard glass fiber bat-type insulation is used in the Utilimaster. Roof insulation, which comes in rolls pre-cut to length, is installed over roof purlins and brace wires prior to roof sheet application. Wall insulation attaches to metal clips. *Dresser-Stacey Company, Ideco Division, 875 Michigan Ave., Columbus 8, Ohio.*

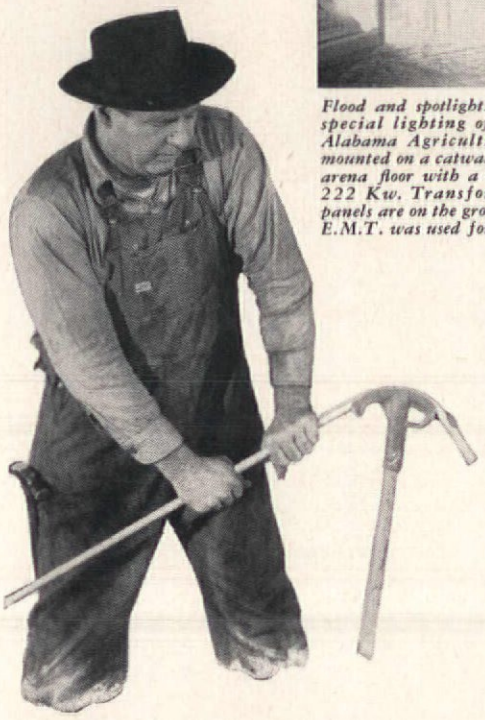
(Continued on page 268)



Flood and spotlights for general and special lighting of the new State of Alabama Agricultural Coliseum are mounted on a catwalk 76 feet above the arena floor with a connected load of 222 Kw. Transformers and feeder panels are on the ground. ELECTRUNITE *E.M.T. was used for both installations.*



State of Alabama Agricultural Coliseum, Montgomery, Ala.
Architect: Sherlock, Smith & Adams, Montgomery, Ala.
Electrical Engineer: James L. Phillips, Birmingham, Ala.
Electrical Contractor: T. D. Little Co., Montgomery, Ala.
Distributor: Noland Co. of Montgomery



Smooth bends are made accurately and quickly, using the Republic one-piece calibrated bender, with "Inch-Marked" E.M.T.

Where Safety Counts, You'll Find Republic "Inch-Marked" ELECTRICAL METALLIC TUBING

You want to be sure electrical wiring is safe and has the mechanical and electrical protection inherent in a steel conduit system. The contractor wants a job that goes in easily and adds to his reputation.

That's why so many buildings like the new State of Alabama Agricultural Coliseum contain a lot of Republic "Inch-Marked®" E.M.T. This lightweight, rigid steel raceway protects wiring circuits against fire, moisture and mechanical injury. It's inspected by Underwriters' Laboratories and approved by the National Electrical Code for exposed, concealed or concrete slab construction.

Corrosion resistance is unbroken, from end to end. There are no threads to cut. Connectors and couplings go over the tube to make tight joints . . . without disturbing the four-dip Preece Test Coating. Galvanized finish will not chip, peel or flake off. Get all the facts in Sweet's. Or write for Booklet SA-54.

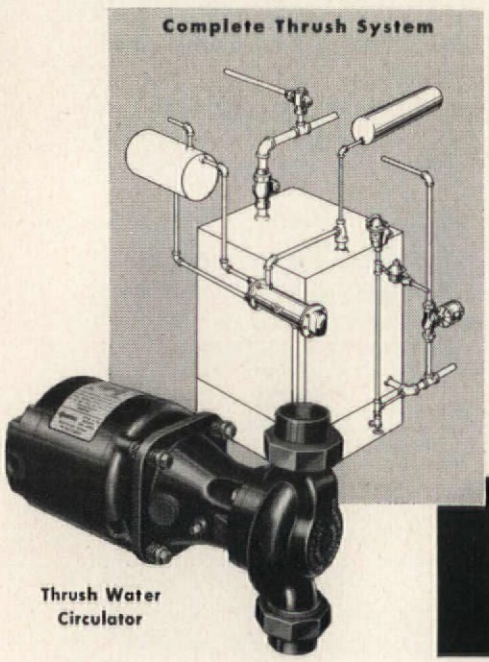
REPUBLIC STEEL CORPORATION
Steel and Tubes Division
201 East 131st Street, Cleveland 8, Ohio
GENERAL OFFICES • CLEVELAND 1, OHIO
Export Department: Chrysler Building, New York 17, New York

REPUBLIC STEEL
REPUBLIC ELECTRUNITE E.M.T.
● "INCH-MARKED" *The Mark of Quality*

get this NEW booklet about

THRUSH RADIANT HOT WATER HEAT

. . . now in reach of lowest budget homes



Thrush Water Circulator

FOLKS today want modern heating in their homes . . . even the smallest ones. Now you can give them, at low cost, Thrush Radiant Hot Water Heat with invisible heating coils in ceiling, floor or baseboard, convectors or conventional radiators. Thrush offers the most economical, efficient and completely automatic system of control for radiant hot water heating available today.

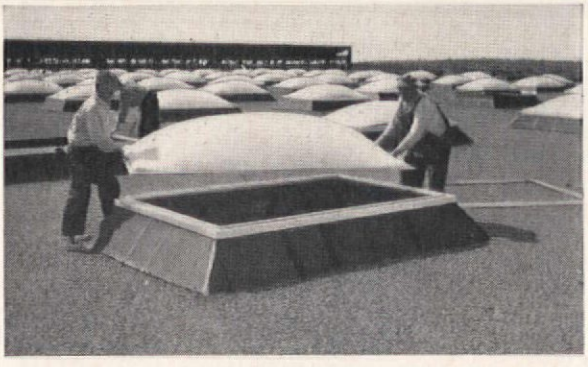
Thrush equipment not only saves fuel, but gives your clients, automatically, the comfort they are seeking. Radiant heat is always present. Temperature is constant, without noticeable fluctuation. Zoning is simple. Installation costs are reduced, too.

See our catalog in Sweet's or write Department J-5.

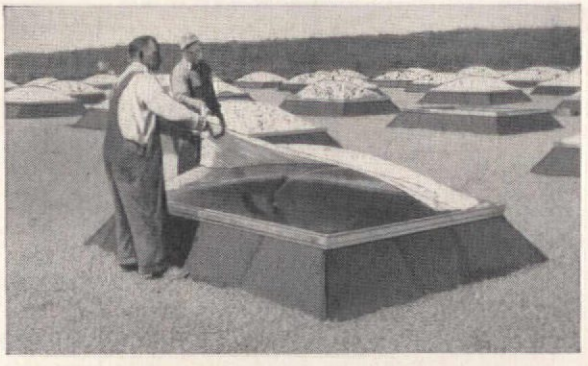
H. A. THRUSH & COMPANY
PERU, INDIANA

TOPS IN TOPLIGHTING

585 WASCOLITE SKYDOMES toplight the Master Operations Building of the new U. S. Army Signal Corps depot at Tobyhanna (Pa.). According to the Architects/Engineers, Gilboy & O'Malley, Philadelphia: "The size—680,000 sq. feet—and shape of this building were dictated by functional requirements. Because daylighting from exterior walls would not reach interior areas, we needed toplighting units that would provide maximum light transmission. Ease of installation was especially important in order to expedite construction. Maintenance, exterior cleaning and painting, and condensation control were other factors. Wascolite Skydomes met all these requirements."



PREFABRICATED SKYDOMES can be installed easily in a few minutes. Shatterproof dome is set between extruded aluminum frames. Built-in weepage arrangement provides complete condensation control.



LATEX COVERING protects Skydomes from scuffing or scarring in shipment and installation. Skydomes are available in Clear Colorless or White Translucent acrylic plastic, in three basic shapes and a variety of sizes.

Wasco offers architects a complete Daylight Engineering Service. Just send floor plan and elevation of project and lighting requirements. No obligation.

CREDITS: Gilboy and O'Malley, Architects/Engineers; Alfred Clauss, architect partner; Merritt-Chapman & Scott Corp., contractors; Columbia Cornice Company, roofing contractor.

wascolite skydomes

See Sweet's Catalog or write..... **WASCO FLASHING COMPANY,** 82 Fawcett Street, Cambridge 38, Mass.

ALL YOUR GOOD WORK
IS ENDANGERED
AT THE FINAL POINT...

THIS FINISHING TOUCH PROTECTS YOU!

All the creative work that you put into designing a lovely panelled room, can be marred by the way it is finished.

Here are three products, recommended by United States Plywood Corporation, that can save you the despair of disappointments, insure a satisfaction of having a job turn out the way you imagined.

For blond or pickled effects specify

WHITE FIRZITE

• Produces magical woodsy effects on any wood. • For light pastel tones, tint with Colors-in-Oil. • For paint jobs on plywood and other soft woods, specify White Firzite as an undercoat. It seals the pores, helps prevent grain-raise and checking.

To tame wild grain on fir plywood stain jobs, specify

CLEAR FIRZITE

Makes low cost plywoods and other soft woods look like more expensive woods. Tames that unsightly grain, provides a satin smooth base for a smooth even finish. To produce stains such as oak, mahogany, walnut, add Colors-in-Oil.

For a natural wood finish on all woods specify

SATINLAC

It brings out and preserves the natural grain and color beauty of any wood. Water-clear Satinlac avoids that heavy built-up look and does not turn yellow. Ask us to send you a blond birch panel showing a Satinlac finish.

WIZARDS WITH WOOD

If you have any problems in wood finishing, let us help you. Write also for specification sheet.

UNITED STATES PLYWOOD CORPORATION

Dept. 102—55 West 44th Street, New York 36, N. Y.

*TRADE MARK

A/E PRODUCTS

(*Continued from page 264*)

FLOOR FOR OPERATING ROOMS

A new type of static-proof floor tile, made from vinylite resins produced by the *Bakelite Co.*, division of *Union Carbide and Carbon*, is recommended for use in hospital operating rooms. Designed to reduce the danger from static electric explosions, Robbins *Static-Proof* tile equalizes the electrical potential of all objects properly contacting the floor, reportedly eliminating the danger of explosions from static discharge in the presence of explosive anesthesia.

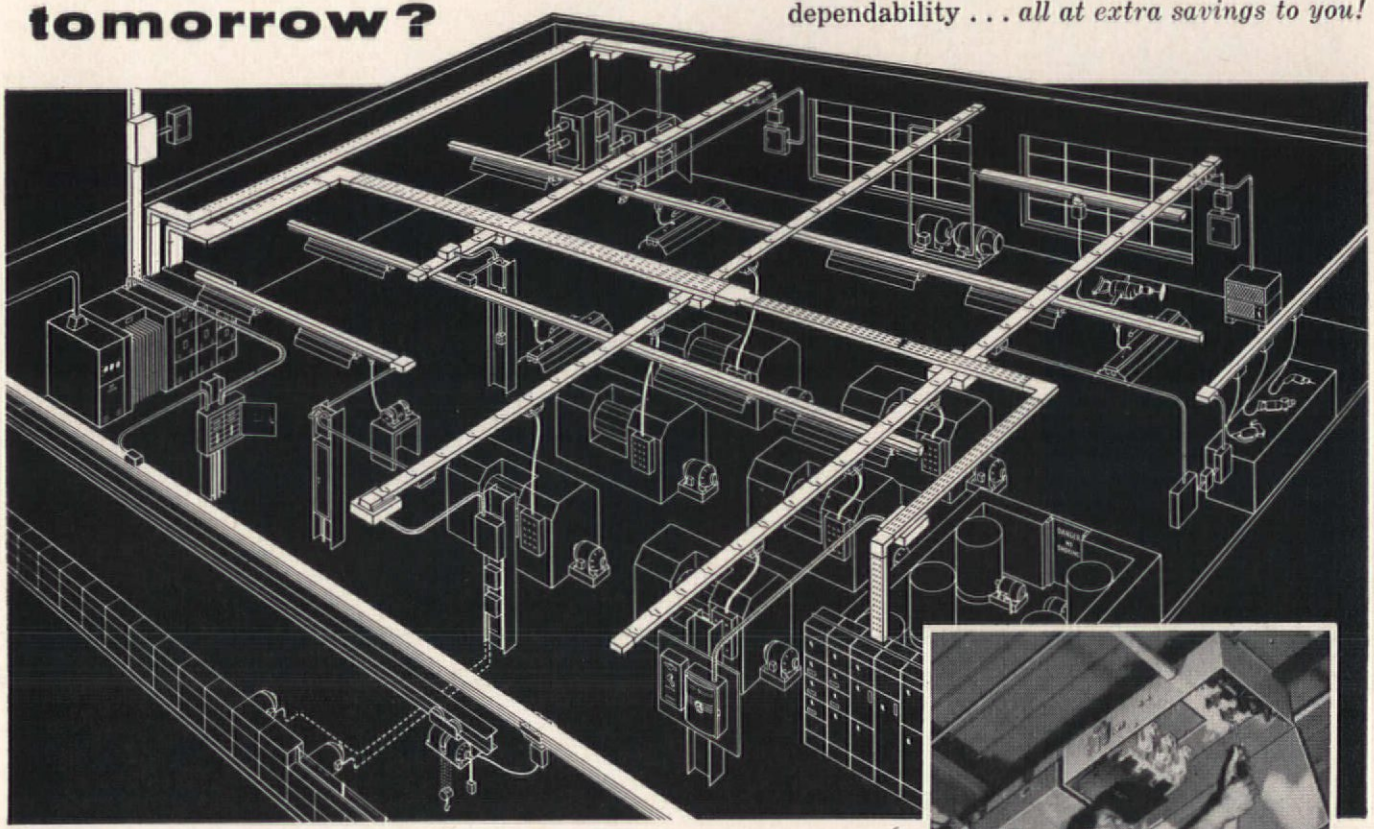
Manufactured in light-reflecting colors, including white, this tile flooring is installed without the use of adhesives. Designed to meet the requirements of the National Fire Protection Assoc., the manufacturer guarantees installations for a period of five years. Due to the method of installation, it is reported that there can be no failure in performance caused by loss of conductivity in the adhesive, because no adhesive is required. Tests subjecting the tile to blood, alcohol, acids, alkalies, oils and other chemicals commonly found in operating rooms, have failed to damage it. Better results in maintaining a satisfactory range of conductivity is claimed by eliminating waxing and providing a nonporous surface, easily cleaned, preventing a build-up of insulating films over the floor surface. When installed in accordance with specifications, no grounding system is required unless specified by local code. *Robbins Floor Products, Inc., Tuscumbia, Ala.*

PORCELAIN HARDWARE DRESSES UP

A new line of hand-decorated porcelain *Decor* hardware, made up of style elements to fit rooms ranging from modern to traditional, has been added to Yale & Towne's line of style-designed ceramic hardware. The variety of decorative accents include hand-painted floral arrangements on white backgrounds with green trim and gold appliqué; solid green, yellow, blue and muted Chinese red styles — some trimmed in gold and others plain; knobs, pulls and plates in black and green with speckled gold; black with gold spiral motif; plaid, and simple white and gold. *S. P. Skinner Co., Inc., 225 Fifth Ave., New York, N. Y.*

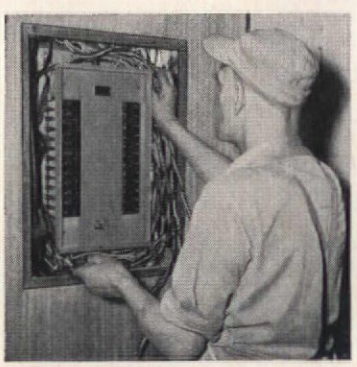
Could you change YOUR plant layout tomorrow?

You could . . . easily and economically . . . with the help of a General Electric *integrated* power distribution system, which has exceptional flexibility and capacity *built in.* For G-E busways, control centers, panelboards and other equipment, working as a system, give extra mobility, extra safety, extra dependability . . . *all at extra savings to you!*



FLEX-A-POWER, G.E.'s modern busway system, takes guesswork out of plans for power distribution. It can be altered or extended. It can be dismantled in one building and re-installed in another — quickly, easily and with complete re-use of all units. It points the way to greater plant efficiency, flexibility and safety. It's ready for the future today.

G-E Motor Control Centers, with instantly accessible, all-purpose plug-in units, are designed to meet the challenge of change . . . quickly and inexpensively.



G-E Panelboards. A broad line of lighting and distribution panelboards, fusible and circuit breaker types, have fast wire-in features . . . make circuit additions or changes simple.

FOR DETAILS, WRITE GENERAL ELECTRIC COMPANY,
DISTRIBUTION ASSEMBLIES DEPARTMENT, PLAINVILLE, CONN.

From power line to production line, make it G.E. all the way.

GENERAL ELECTRIC

For Industrial Roofing & Siding

specify Grade-Marked

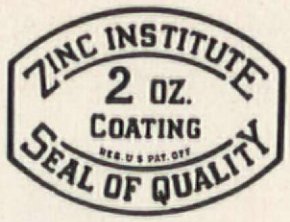
Galvanized Sheets

for PEAK PERFORMANCE

Engineers and designers of industrial and commercial buildings know galvanized sheets to be superior building material for this type of construction—particularly for roofing and siding. They know that time-tested galvanized sheets offer:

- **SHORT-TERM *plus* LONG-TERM ECONOMY**
  Low *initial* cost, low *application* cost, low *per-year* cost
- **STRENGTH OF STEEL; RUST-PROTECTION OF ZINC**
  Withstand rough treatment, add structural strength and are fireproof

All galvanized sheets give years of useful service. But the *heavier* the zinc coating, the *longer* the life of the base sheet. Because various weights of zinc coating look alike on the surface, it pays to *specify a grade-marked sheet* . . . Get the heaviest coating you can buy!



IT'S THE ZINC THAT STOPS THE RUST

For long, rust-free service, specify a heavy duty sheet such as the "Seal of Quality" with a zinc coating of *2 ounces per square foot.* For heavier coatings order according to ASTM Specification A 93.

ATTENTION: MAINTENANCE DEPTS.

Get the facts on MZP (Metallic Zinc Paint) for structural steel and galvanized surfaces. Also, zinc for cathodic protection and grounding electrodes. Check coupon below.

Send For FREE VALUABLE BOOKLETS

American Zinc Institute, 60 East 42nd Street, New York 17, N. Y. Dept. AR-5
Send booklets checked without cost or obligation

☐ CATHODIC PROTECTION with Zinc Anodes ☐ MZP Metallic Zinc Paint
☐ GRADE-MARKED GALVANIZED SHEETS for Industrial Buildings

Company_____

Name of Individual_____

Address_____

City or Town_____ Zone_____ State_____

AEH LITERATURE

(*Continued from page 215*)

AIRFLOW FUME HOODS

Airflow Control. Booklet gives characteristics chart (velocity), sash up and sash down illustrations, model types with accessories listed in each case, and company facilities. 10 pp, illus. *Kewaunee Mfg. Co., Adrian, Mich.*

CARPETING

So You're Going to Buy a Carpet! New booklet gives advice about colors, fibers, and weaves along with information on the type of rug for the type of room. Oriental rugs, carpet padding and installation are also described. 16 pp, illus., $.10 per copy. *Carole Winslow, Gulistan Home Decorator, 295 Fifth Ave., N. Y. 16, N. Y.*

LIGHTING

Plexlite. Folio No. P-54. Booklet describes a variety of lighting units which have molded wh te plexiglas diffusers and eighteen gauge cold-rolled steel chassis finished in baked white enamel of 89 per cent reflectivity. Folio P-54 contains complete specifications on the wide range of units, squares, rectangles, rounds; varying deepness of the diffuser; and many sizes up to 4-ft sq and 6-ft round. Fully illustrated, it displays many application possibilities. 15 pp, illus. *Gruber Lighting, 125 So. First St., Brooklyn 11, N. Y.*

SUSPENDED CEILING APPLICATION SYSTEMS

Advantages, engineering data and architectural specifications on two types of suspended ceiling systems, the *Nailock* and *Screwlock*, are contained in the *Sanymetal Suspended Ceiling Catalog SN-6, A.I.A. 39-B-1.* 8 pp, illus. *The Sanymetal Products Co., Inc., 2093 E. 19 St., Cleveland 15, Ohio.**

INSTALLING TILE FLOORING

Recommended Specifications for the Installation of Vinyl Plastic Asbestos Tile Flooring, A.I.A. File No. 23-G (N.N.), is a three-page paper listing materials required for the operation and the application of the materials for sub-floor surfaces (concrete and wood) plus general recommendations. *Asphalt Tile Institute, 101 Park Ave., New York 17, N. Y.*

(*Continued on page 274*)

Gold Seal Rubber Tile

the quiet floor with the built-in bounce

When you want a *showpiece* floor . . . specify Gold Seal Rubber Tile. It's so resilient it puts wonderful comfort into footsteps . . . hushes every room to soothing quiet. This magnificent resilience helps it do *the best job* of resisting indentation from heavy furniture and leather heels . . . keeps it from chipping or cracking! Gold Seal Rubber Tile has a beauty that lasts its life through . . . needs little upkeep. Its *clearer, truer, more beautiful colors* suggest an endless variation of appealing design combinations. Now in 21 marbleized colors. Standard and 1/8" gauges. 6" x 6", 9" x 9", 12" x 12" tiles.

Our Kangaroo and the ball are made of thirteen Gold Seal Rubber Tile patterns

GOLD SEAL® Floors and Walls

CONGOLEUM-NAIRN INC.
Kearny, New Jersey ©1954

Architects' Service Dept. AR-5
Congoleum-Nairn Inc., Kearny, N. J.

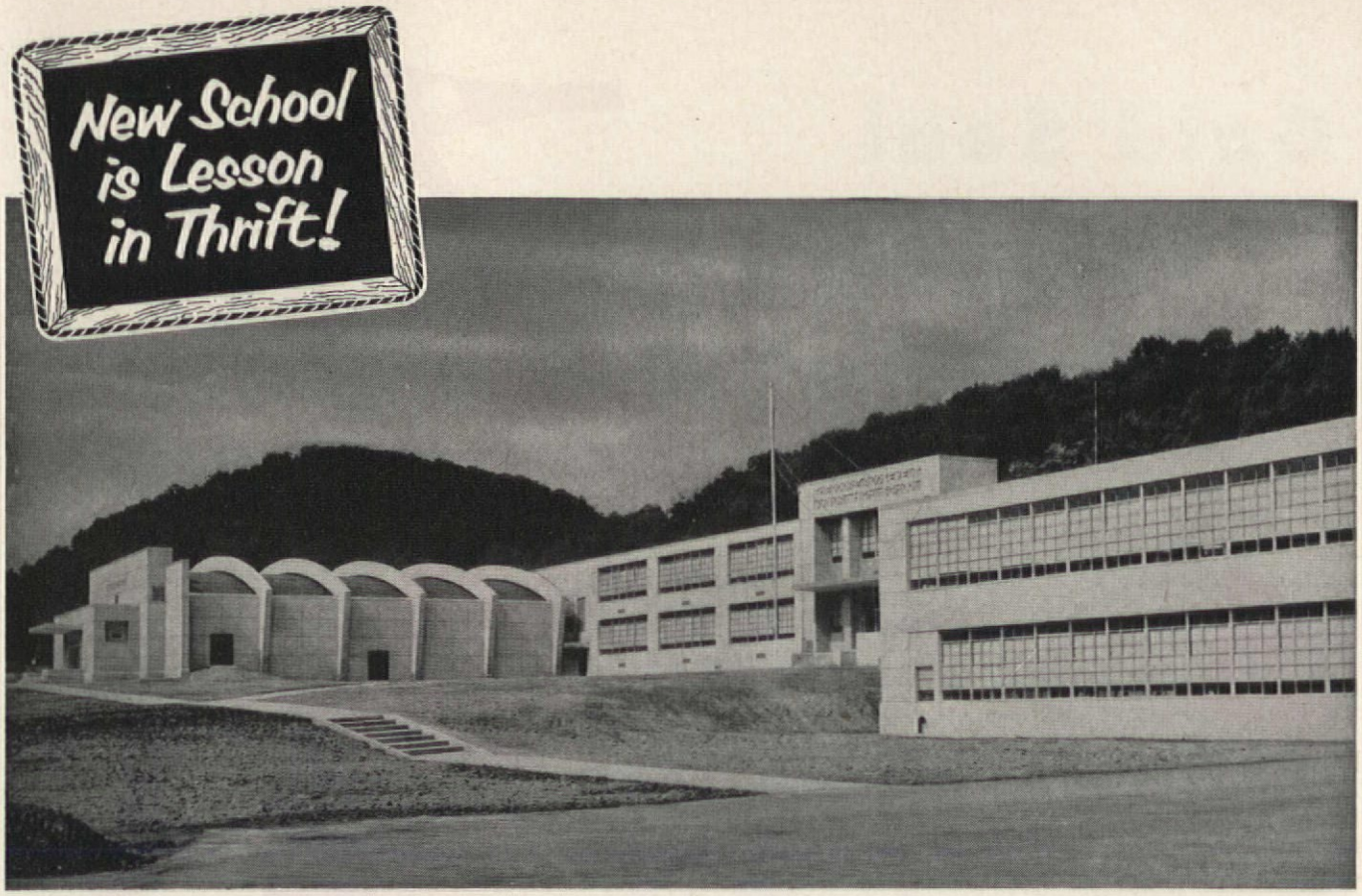
Please send me the illustrated booklet "Which Floor Goes Where in Commercial Areas" which shows the advantages and disadvantages of various floor coverings and recommends where each type should be installed.

NAME _____

FIRM _____

ADDRESS _____

CITY _____ STATE _____



Contractor: Lundy Construction Company, Williamsport, Pa. Engineers: A. W. Lookup Company, Philadelphia, Pa. Architect: D. H. Grootenboer, Williamsport, Pa.

Economical Architectural Concrete made with Duraplastic*

Rates an "A" in Appearance

THE NEW Theodore Roosevelt Junior High School in Williamsport, Pa., scores high in appearance as well as economics — construction costs are held down because architectural concrete serves as both structural *and* facing material. And lowest possible maintenance and insurance costs can be figured with durable, fire-safe concrete construction. For better concrete quality, Atlas Duraplastic air-entraining portland cement was used throughout.

Duraplastic aids proper placement with improved surface appearance because of its more workable, more plastic mix. It requires less mixing water for a given slump. And with Duraplastic, there's another big advantage—

The air-entraining feature, originated and developed by Universal Atlas, minimizes bleeding or water gain and segregation. Thus the finished concrete is fortified against the effects of freezing-thawing weather.

YET DURAPLASTIC COSTS NO MORE. These advantages are yours simply by *specifying* Atlas Duraplastic. It sells at the same price as regular cement and requires no unusual changes in procedure. Complies with ASTM and Federal Specifications. For more information, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Ave., New York 17, N. Y.

OFFICES: *Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.*

**"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.*

ATLAS® **DURAPLASTIC**

AIR-ENTRAINING PORTLAND CEMENT

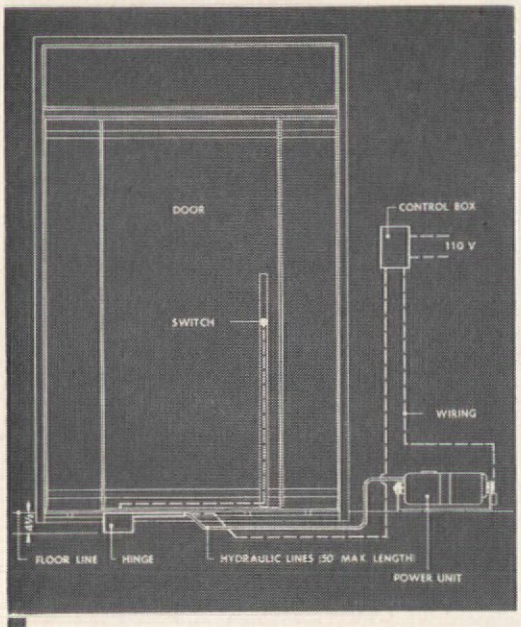
AR-D-150

Makes Better Concrete at No Extra Cost

UNITED STATES STEEL HOUR—Televised alternate weeks—See your newspaper for time and station.

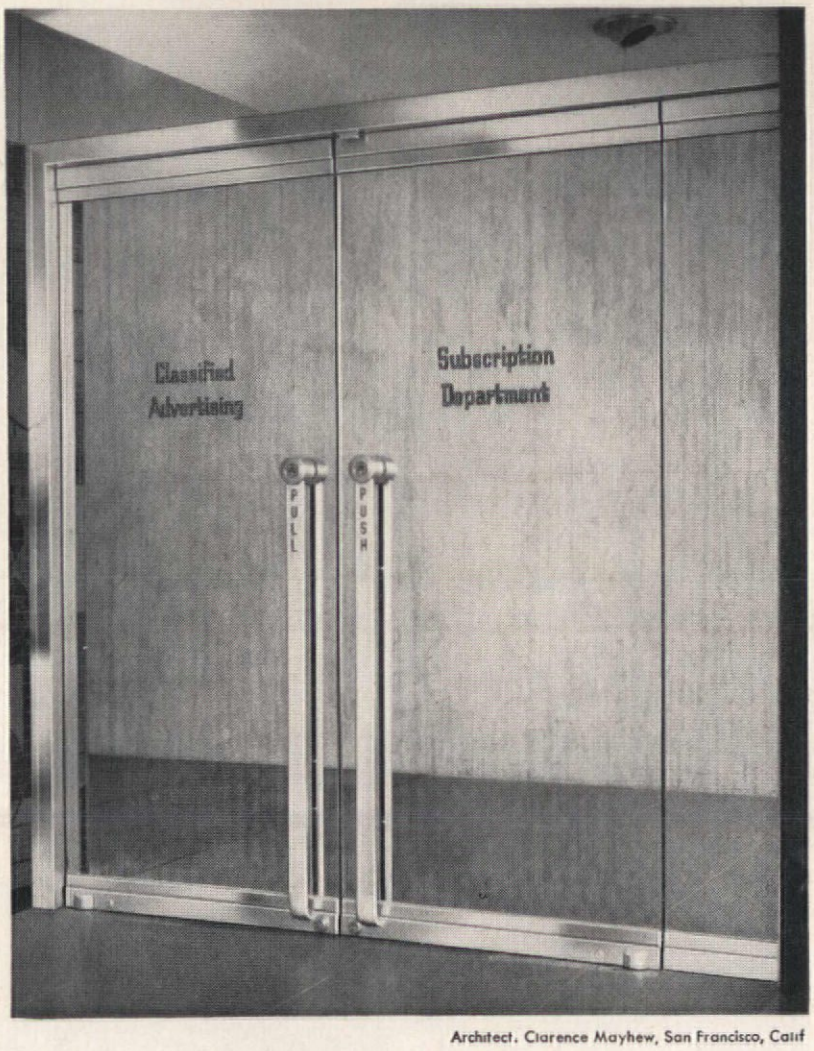
Here's a doorway

that helps to open the way to reduced costs!



Doors open at a touch!

Its magic-like operation has made the Pittcomatic Hinge "the nation's finest automatic door opener." Just a touch on the handle and doors open silently and smoothly. This diagram shows the operation of the Pittcomatic. Hydraulic power is supplied by the power unit to the hinge under the door through ⅜" copper lines. Oil lines are 3000-lb. test. A 10-volt circuit in the handle passes through the control box and activates the power unit. Since no power can build up, it is a safe door.



Architect. Clarence Mayhew, San Francisco, Calif

SPECIFYING a Pittsburgh Doorway is one of the important steps you can take to help cut on the-job costs. That's because these doorways are factory-assembled to precision standards. They come to the site in one "package"—ready for quick, easy installation. It's simply a matter of unpacking the frame and bolting it into the building opening. Then the Herculite Doors, for whose strength the frames have been especially engineered, are hung. That's all there is to it. No time-consuming calculations and fabricating at the site.

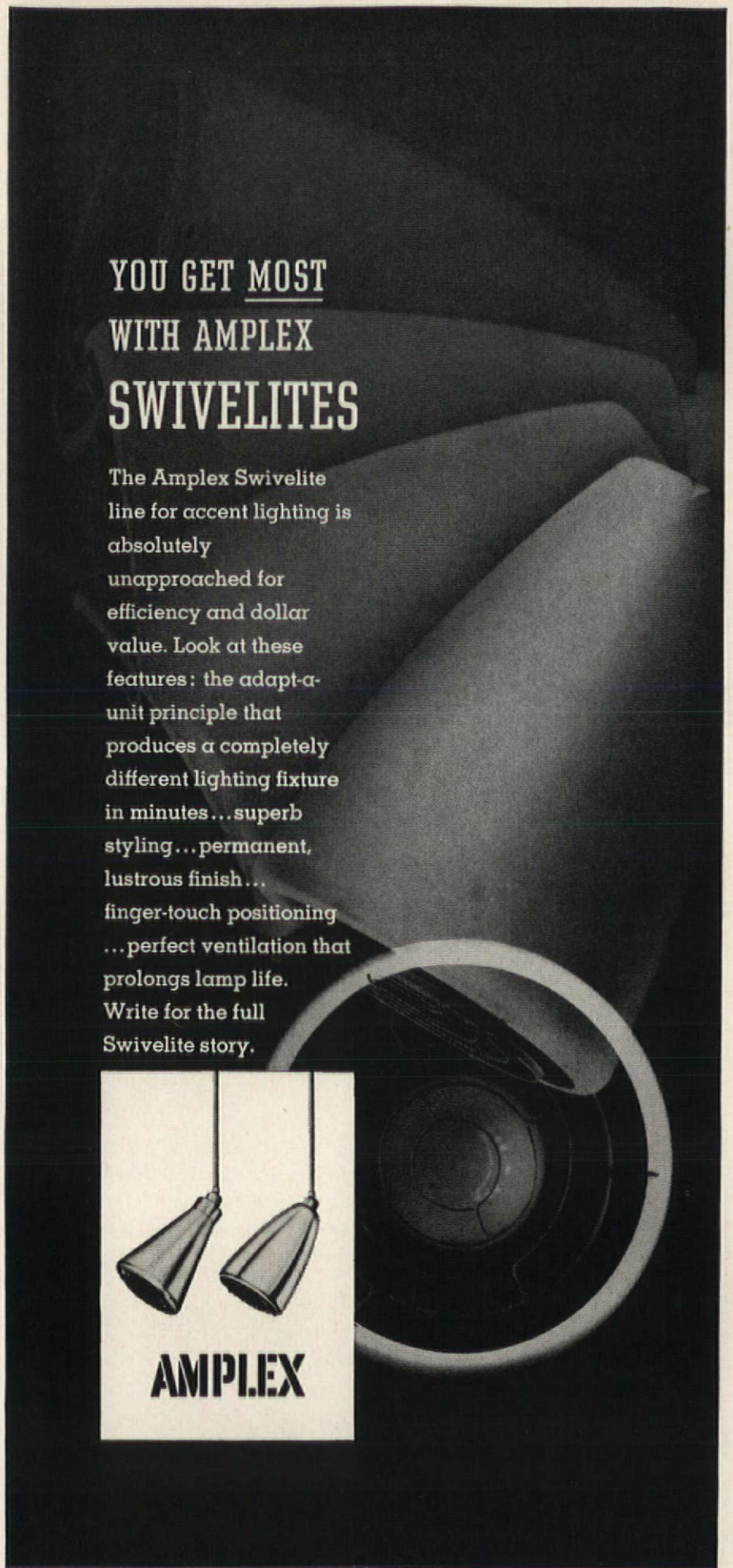
That is why we suggest: "In figuring on doorways, consider the total-installed cost—not just the list price." When you do, you'll find Pittsburgh Doorways winning hands down! You'll want all the facts. So, why not write today to Pittsburgh Plate Glass Company, Room 4192, 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.

Pittsburgh **DOORWAYS**

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



A/E LITERATURE

(*Continued from page 270*)

MASONRY WATERPROOFING BROCHURE

A new brochure in two colors, *Prooftite Coatings*, describes the latest methods of combining decoration with protection of all types of masonry surfaces, including brick, asbestos shingles, concrete, cement block, stucco and cinder block, complete with illustrations. Also included are detailed specifications of properties and user benefits. Another feature of the brochure is a user's guide explaining application, surface preparation and other specification data. 8 pp, illus. *Prufcoat Laboratories, Inc., 50 E. 42 St., New York 17, N. Y.*

MICA PROTECTED STEEL

Plasteel, A.I.A. File Number 12-C-1, is an engineer's handbook for roofing, siding, insulated panels and roof decks of Plasteel. Besides giving installation instructions, this booklet also offers specification data, sheet coverage, computation tables and standard forms, and coverage dimensions. Two pages are devoted to the manufacturing process of the product that reportedly combines the strength of steel with three highly protective coatings — an adhesive rust inhibitor, a weather-seal-asphaltic-plastic and pure mineral mica — for protection against corrosion. 24 pp, illus. *Plasteel Products Corp., Washington, Pa.*

CONCENTRIC RING PLASTIC UNITS

Caldwell-Perfeclite Catalog No. K-1248-P Booklet describing incandescent luminaire, with specifications, order and engineering data. Several tables are shown, including: distribution, light flux values, luminaire brightness and coefficients of utilization. A catalog on 18th century lighting fixtures is also available from the manufacturers. *E. F. Caldwell & Co., Inc., 101 Park Ave., N. Y., N. Y.*

PIPE INSULATION

Gilsulate. Booklet gives examples of insulation methods for hot underground pipes. Technical data is also shown. 4 pp, illus. *American Gilsonite Co., 134 W. Broadway, Salt Lake City, Utah.*

(*Continued on page 278*)

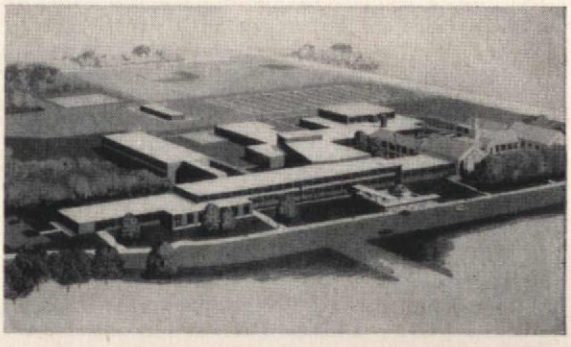
Bolting cuts two weeks from schedule, slices 40% from riveting estimate

You ought to read the sensational reports we're getting on the way RB&W high-strength bolts (ASTM Specification A-325) are speeding construction.

Listen to Jack Corchin, president of steel erectors Max Corchin & Sons, Inc., Philadelphia. His firm just put up the steelwork for the new Springfield (Pa.) High School. Here's what he says:

"Our records show that your high-tensile strength bolts saved two weeks in erection. Our cost was only 60 percent of our estimate for rivets. High-strength bolts offer easy and quiet installation, and they provide more strength at lower cost."

These are *facts*. You can't overlook them. You can't argue about them. You *can* sit down and write for our catalog "High-strength Bolts for Structural Steel Connections." 3.12



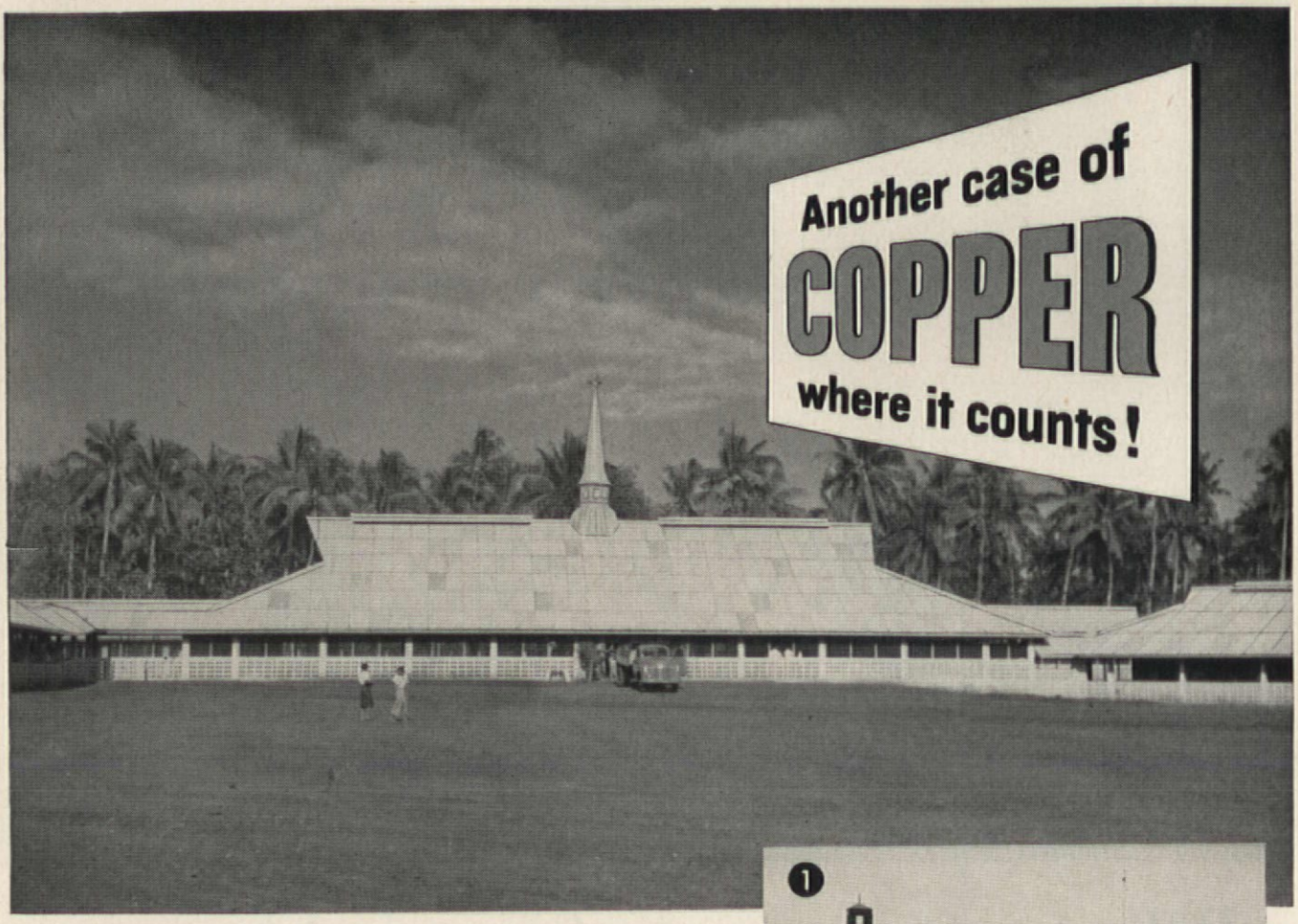
NEW SENIOR HIGH SCHOOL for Springfield Township, Delaware County, Pa. Architect, Harry G. Stewart, A.I.A.; contractor, Turner Construction Co.; steel erectors, Max Corchin & Sons, Inc.

See our insert on high-strength bolts in Sweet's Architectural File

RB&W **RUSSELL, BURDSALL & WARD**

109 YEARS MAKING STRONG THE THINGS THAT MAKE AMERICA STRONG

Plants at: PORT CHESTER, N.Y.; CORAOPOLIS, PA.; ROCK FALLS, ILL.; LOS ANGELES, CALIF. *Additional sales offices at:* ARDMORE (PHILA.), PA.; PITTSBURGH; DETROIT; CHICAGO; DALLAS; SAN FRANCISCO. *Sales agents at:* PORTLAND, SEATTLE. *Distributors from coast to coast.*



18,000 LBS. OF NON-RUSTING REVERE COPPER, IN THE FORM OF PREFABRICATED ORNAMENTAL TOWERS AND SHEET, IS SENT TO THE SOUTH SEA ISLANDS TO FIGHT THE BATTLE OF CORROSION.

When the question was broached as to what metal should be specified for the flashing, gutters, downspouts and towers of the 15 new chapels and 3 new schools to be erected in the Pacific Islands, there were no ifs, ands or buts. Architect, EDWARD O. ANDERSON (A.I.A.), specified copper . . . the metal that has already proved its superior endurance under the most adverse atmospheric conditions throughout the centuries.

Also, copper was the ideal choice for the decorative towers as it is so readily fashioned into any desirable form and takes solder so well. This project, which covers schools in Tonga, British Samoa and Tahiti, and 15 chapels in various Samoan Villages, introduced the concrete block to the Islands. Roofs, interestingly enough, are corrugated Transite.

You may have few projects in the South Sea Islands, but it's a good thing to remember; whether you are designing buildings for a tropical clime or Main Street, U.S.A., the way to keep out of trouble is to use the metal that has already proved itself everywhere . . . copper.

Protect *your* reputation. Give *your* jobs the many benefits of Revere Copper. There is a Revere Distributor near you who stocks Revere Sheet, Strip or Roll Copper for flashing and roofing. Ask him about the money-saving advantages of Revere Keystone Thru-Wall Flashing* and the new Revere-Keystone 2-piece Cap Flashing.** And, if you have technical problems, he will put you in touch with Revere's Technical Advisory Service.

*Patented **Pat. Pend.

REVERE

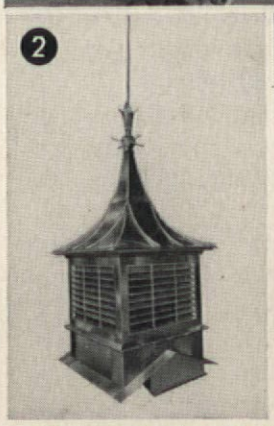
COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, N.Y.

Mills: Baltimore, Md.; Chicago and Clinton, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.— Sales Offices in Principal Cities, Distributors Everywhere.

SEE "MEET THE PRESS" ON NBC TELEVISION, SUNDAYS



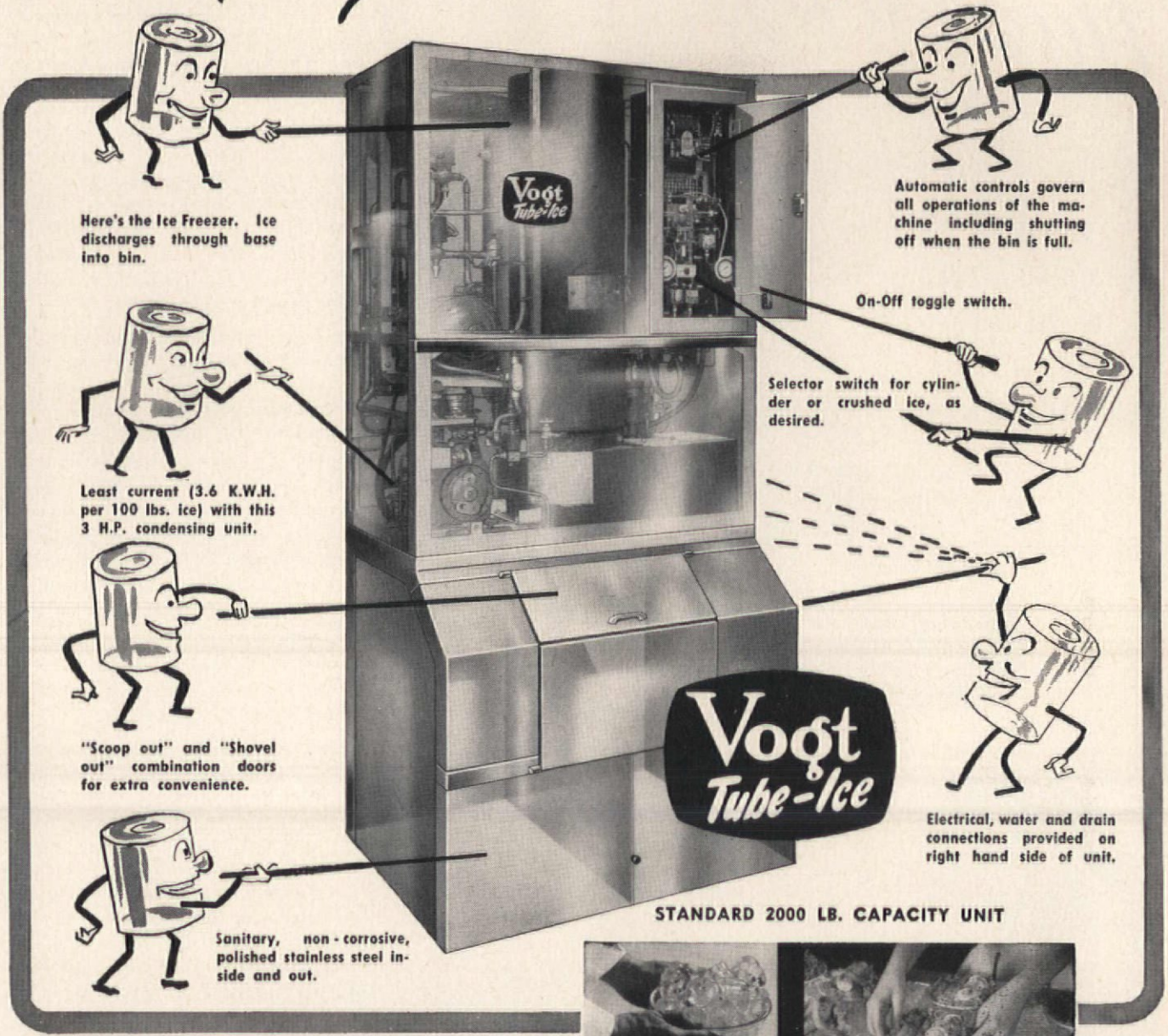
Main illustration shows PESEGA SCHOOL, Apia, W. Samoa. All buildings built by the Church of Jesus Christ of Latter-Day Saints.

• • •

(1) LIAHONA COLLEGE for Girls and Boys, Nukualofa, Tonga. One of 18 buildings protected by Revere Copper. 6,000 lbs. were used for flashing and gutters.

(2 and 3) Two of the numerous towers which consumed an additional 12,000 lbs. All were 16 oz. Towers were prefabricated in the United States by CARVER SHEET METAL WORKS, INC. All Revere Copper was supplied through PACIFIC METALS CO., Ltd., both of Salt Lake City, Utah.

Here's inside information on the finest Ice making unit ever made



STANDARD 2000 LB. CAPACITY UNIT

CYLINDER TUBE-ICE CRUSHED TUBE-ICE

OPERATION OF THE MACHINE

1. Single toggle switch controls starting and stopping of unit. Ice discharges through base of freezer to patented ice sizing cutter.
2. A three-position selector switch provides automatic control of ice making unit to produce and store cylinder and crushed Tube-Ice consecutively (requiring two ice bin thermostats) or either type of ice exclusively.
3. Automatic blowdown in water pan maintains freshness and aids in reduction of concentrated solids.
4. An upper "scoop out" for small quantities of ice and a lower "shovel out" door are provided in storage bin.
5. Minimum of 3" Fiberglass insulation between storage bin walls. Bin has removable partition if but one type of ice is desired.
6. Copper or brass tubes used for freezer, condenser and refrigerant piping.
7. Tube-Ice Units are completely self-contained and conform to A.S.M.E. Code. Require only the addition of the refrigerant charge, and water and electrical connections.

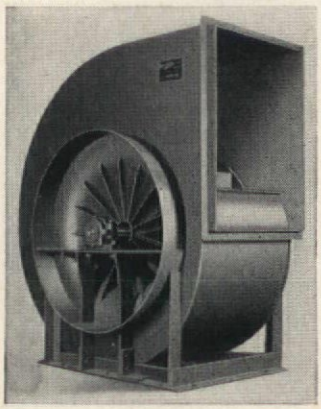
WRITE FOR BULLETIN

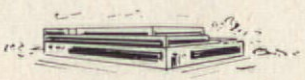
HENRY VOGT MACHINE CO.
Louisville 10, Ky.

BRANCH OFFICES: New York, Philadelphia, Chicago, Cleveland, St. Louis, Dallas, Charleston, W. Va.

"Hush-a-Bye" Quiet

A NEW ACHIEVEMENT IN QUIET FAN PERFORMANCE





The new "Buffalo" Type "BL" Limit-Load Fan with the "Q" Factor* brings in a new era of low-decibel performance which will have a profound effect on ventilation in plants, hospitals, hotels, office buildings, schools, stores and auditoriums . . . in fact, in any building where "quiet" is important.

This superb smoothness and quietness have already earned for the "BL" the name "Hush-A-Bye Buffalo". Why not see the engineering reasons for this, in new Bulletin F-100. Your copy mailed on request.

*The "Q" Factor — The built-in Quality which provides trouble-free satisfaction and long life.

"Buffalo"

BUFFALO FORGE COMPANY

145 MORTIMER ST. BUFFALO, N. Y.

Publishers of "Fan Engineering" Handbook

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.
Sales Representatives in all Principal Cities

VENTILATING AIR CLEANING AIR TEMPERING INDUCED DRAFT EXHAUSTING
FORCED DRAFT COOLING HEATING PRESSURE BLOWING

AIA LITERATURE

(*Continued from page 274*)

ALL ABOUT EAMES CHAIRS

The *Eames Chair Chart* was released by the manufacturer for use by architects, interior decorators and designers. It gives complete information on the five seating forms — bases, colors and upholstery fabrics. 4 pp, illus. *Herman Miller Co., Zeeland, Mich.*

VAPOR RISE PROTECTION

Tech Tips illustrates the use of Sealtight, premolded membrane that reportedly offers a positive vapor barrier, for on-grade-slab installations, joist-over-grade installations and perimeter duct installation. Complete with detailed diagrams, this folder gives specifications and applications of the product in such situations as concrete floors in basementless houses, the impermeable resilient core wall and deck, under slab duct installation and the wood floor on the grade slab. 48 pp, illus. *W. R. Meadows, Inc., Elgin, Ill.*

NAILS VERSUS STAPLES

Effectiveness of Nails Versus Staples for Fastening Underlayment was written by E. George Stern, Research Professor at the Virginia Polytechnic Institute, on an investigation sponsored by the Independent Nail and Packing Co., Bridgewater, Conn. The booklet gives data on several series of tests performed on the effectiveness of nails versus staples in fastening ¼-in. thick underlayment (such as Douglas fir plywoods and Masonite) over rough subflooring to serve as a smooth, flat base for linoleum, rubber tile, carpeting and other finished flooring. 8 pp, illus. *Virginia Polytechnic Institute, Dept. of Wood Construction, Blackburg, Va.*

LITERATURE REQUESTED

The following individuals and firms request manufacturers' literature:

- Jacques Hellio, Architect, 121 rue Faider, Bruxelles, Belgium.
- Julius Lusis, Architectural Draftsman, 3590 Park Ave., New York 56, N. Y.
- William Wesley Peters, % Frank Lloyd Wright, Architect, Taliesin, Spring Green, Wis. and also Taliesin West, Phoenix, Ariz.

Aerial view of Eastern Air Lines' base at Miami International Airport. Maintenance building in foreground designed by Leslie B. Taylor, consulting structural engineer, of Miami. Construction supervised by J. Herbert Shartle, Eastern Air Lines engineer. Steelwork fabricated and erected by Bethlehem Steel Company.

World's Largest Maintenance Hangar

This mammoth building, dwarfing the planes on its concrete ramp, is Eastern Air Lines' new $5,000,000 maintenance hangar, largest and most modern of its kind in the world.

Built in the shape of a T, the three-story structure stretches nearly a quarter of a mile from end to end. The stem of the T provides fourteen work ports, seven on each side, while the huge hangar crossing the T accommodates two Super-Constellations. In addition, the 448,748 square feet of floor space contains maintenance offices, overhaul shops, stockrooms and a large, one-story warehouse.

The sturdy framework of this remarkable building consists of 3082 tons of structural steel, fabricated and erected by Bethlehem Steel Company. Erecting an average of almost 100 pieces of steel every day, Bethlehem completed the job in just 70 working days.

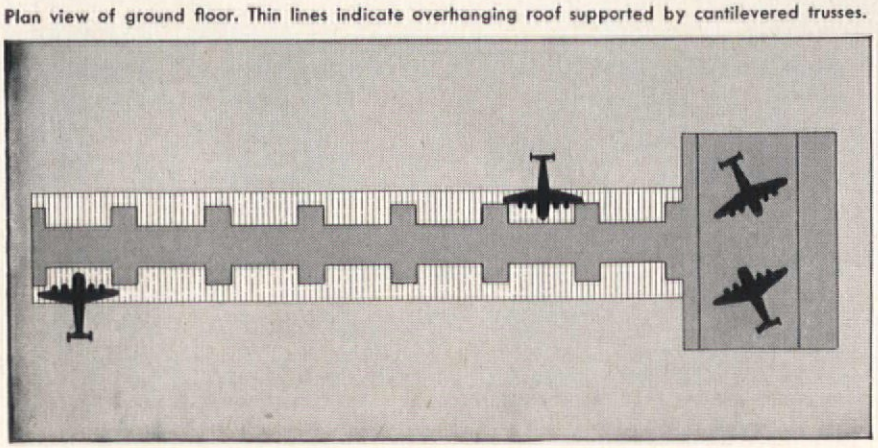
BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM STEEL

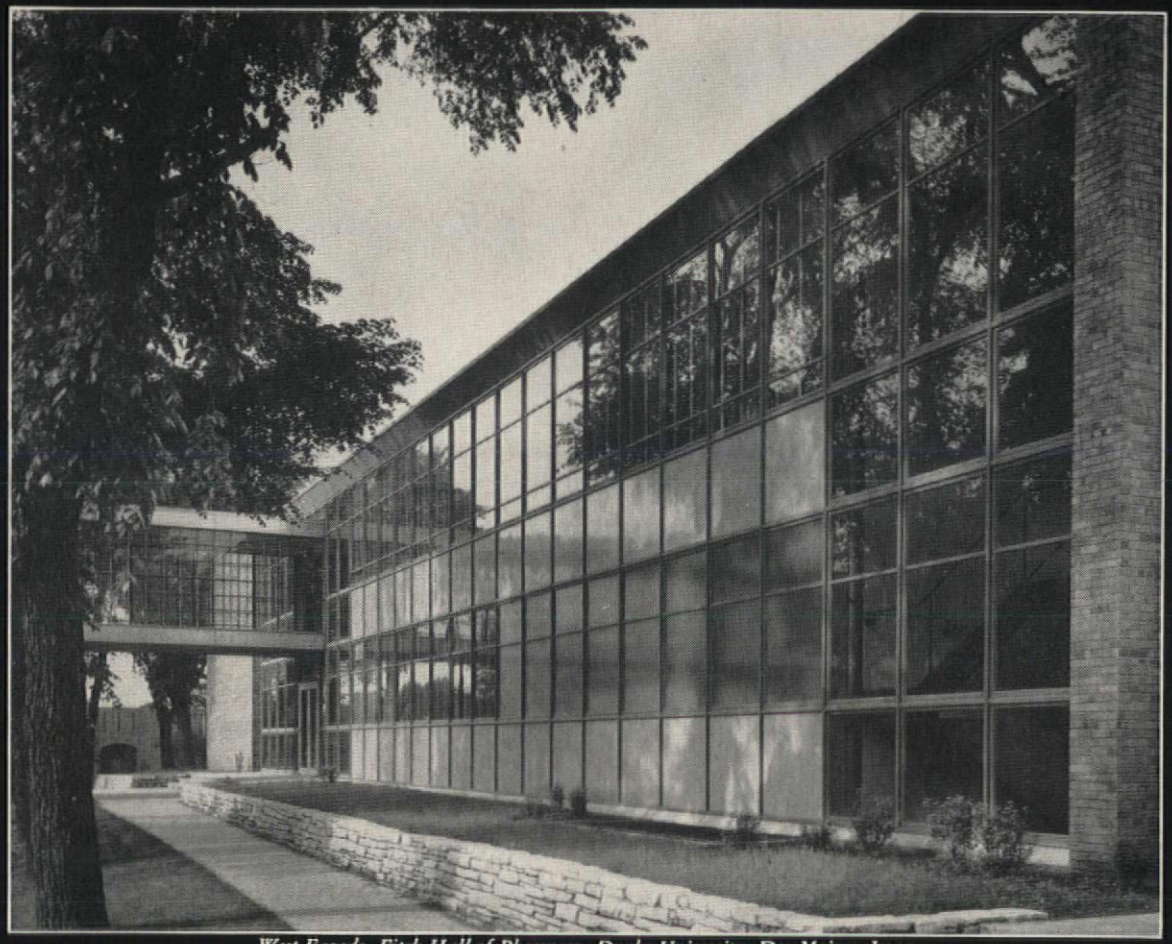
Plan view of ground floor. Thin lines indicate overhanging roof supported by cantilevered trusses.



View of steelwork for 1219-foot-long hangar.

The Name **HOPE'S** *Guarantees*

WINDOW WALLS



West Facade, Fitch Hall of Pharmacy, Drake University, Des Moines, Iowa
Architect — Saarinen, Swanson and Saarinen; Associate Architect — Brooks-Borg
General Contractors — Arthur H. Newmann & Bros., Inc.

This striking WINDOW WALL, duplicated on the east facade and repeated by even larger ones on two elevations of the adjoining Harvey Ingham Hall of Science, demonstrates exceptionally well the practical benefits HOPE'S WINDOW WALLS constructed from Hope's pressed steel subframes and Hope's Intermediate Projected Windows. Observe that the system of fenestration completely covers the face of the building from grade to ceiling of the top story, eliminating sill-high masonry and exterior columns. Such a system is easily and quickly installed; saves time and cost in erection.

Inside, the complex needs of laboratories, classrooms, offices and corridors are met with ventilation and light in abundance, under good control. Hope's system of WINDOW WALL construction is weathertight; it permits infinite variety in design; upkeep expense will be low.

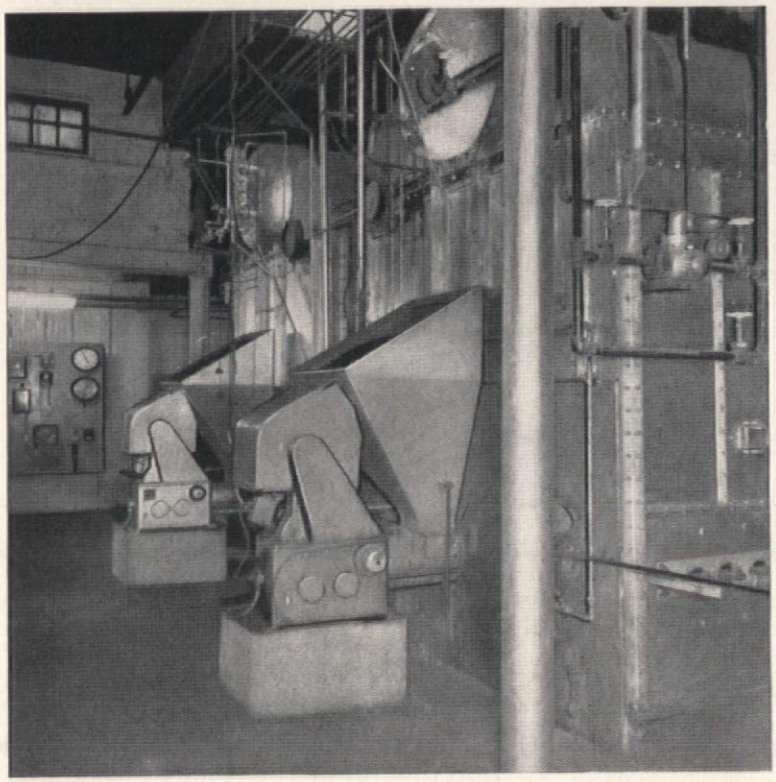
All types of ventilators can be accommodated in HOPE'S WINDOW WALL system and it can be applied to buildings of any length and height. Hope's Engineering Dept. is always ready to help you with details. Other installations are described in "Hope's Window Walls" (publication No. 134W).

HOPE'S WINDOWS, INC., *Jamestown, N. Y.*

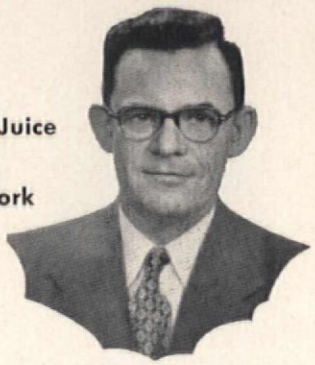
THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

"WE GET BIG SAVINGS BY BURNING COAL THE MODERN WAY!

Other fuels would cost us far more!"



says
Mr. A. J. Monta,
Plants Engineer,
The Welch Grape Juice
Company, Inc.,
Westfield, New York



"We analyzed the cost of coal and other fuels before modernizing our power plant. The result is this up-to-date coal installation that delivers steam at half the cost of competing fuels. *For economy you can't beat* bituminous *coal burned the modern way!*"

Modern coal-burning and handling equipment saves this plant more than 35% on labor alone! New stokers, boilers, controls and coal-handling equipment cut labor costs and save this plant 18% on fuel. The complete installation will pay for itself in about 6 years.

● Burning bituminous coal the modern way can save you money, too! Labor costs are cut to a minimum with up-to-date coal- and ash-handling equipment... modern combustion installations deliver anywhere from 10 to 40% more power from every ton of coal!

That's why, if you're planning to modernize or build a new plant, it will pay you to get the latest facts on coal. Let a consulting engineer show you how a modern coal installation designed to meet your specific needs can save you real money.

Here's something more! Today's bituminous coal customers get a better-prepared product—designed to meet their special requirements. And bituminous coal offers future dependability no other fuel can match. Reserves are virtually inexhaustible, and America's coal industry is the world's most efficient —your assurance of dependable supply of coal at relatively stable prices for years to come.

If you operate a steam plant, you can't afford to ignore these facts!

COAL in most places is today's lowest-cost fuel.

COAL resources in America are adequate for all needs—*for hundreds of years to come.*

COAL production in the U.S.A. is highly mechanized and by far the most efficient in the world.

COAL prices will therefore remain the most stable of all fuels.

COAL is the safest fuel to store and use.

COAL is the fuel that industry counts on more and more—for with modern combustion and handling equipment, the inherent advantages of well-prepared coal net even bigger savings.

BITUMINOUS COAL INSTITUTE
A Department of National Coal Association, Washington, D. C.

FOR HIGH EFFICIENCY FOR LOW COST

YOU CAN COUNT ON COAL!

In Shopping Centers...

★ STORE BUILDINGS
★ ALL PUBLIC STRUCTURES

WEISART COMPARTMENTS

A typical Weisart ceiling-hung installation similar to that in Evergreen Park Shopping Plaza, Chicago, Ill. Howard Fisher and Holabird & Root & Burgee, Architects. George A. Fuller, Contractor.

For shopping centers and for every public building, where appearance, sanitation and ability to stand the hardest usage are vital, Weisart toilet compartments are the logical choice. Their enduring serviceability has a triple protection: (1) flush steel construction with edges locked and sealed, galvanized surface smooth as furniture steel (2) Bonderized for additional corrosion resistance and positive adhesion of enamel (3) synthetic primer and enamel separately baked, combining highly protective surface with lustrous beauty in choice of 24 colors! Ceiling-hung Weisart compartments leave floor clear for cleaning. For detailed information write

HENRY WEIS MFG. CO., INC. *503 Weisart Bldg., Elkhart, Ind.*

THE RECORD REPORTS

WASHINGTON
(*Continued from page 38*)

FEDERAL HOSPITAL BOARD PROPOSAL IS CONSIDERED

Congress has been hearing testimony on creation of a Federal Board of Hospitalization to coordinate hospital construction programs of the Federal government.

One witness before a House subcommittee, Rear Admiral F. C. Greaves, U. S. N., said that introduction of the proposed board into the existing routine would add administrative work and increase the danger of backlogs with a consequent reduction in operational efficiency. An old FBH, created in 1921, was terminated in 1948; at that time no objections to its demise were heard.

Representatives of Veterans Administration also opposed the proposed legislation.

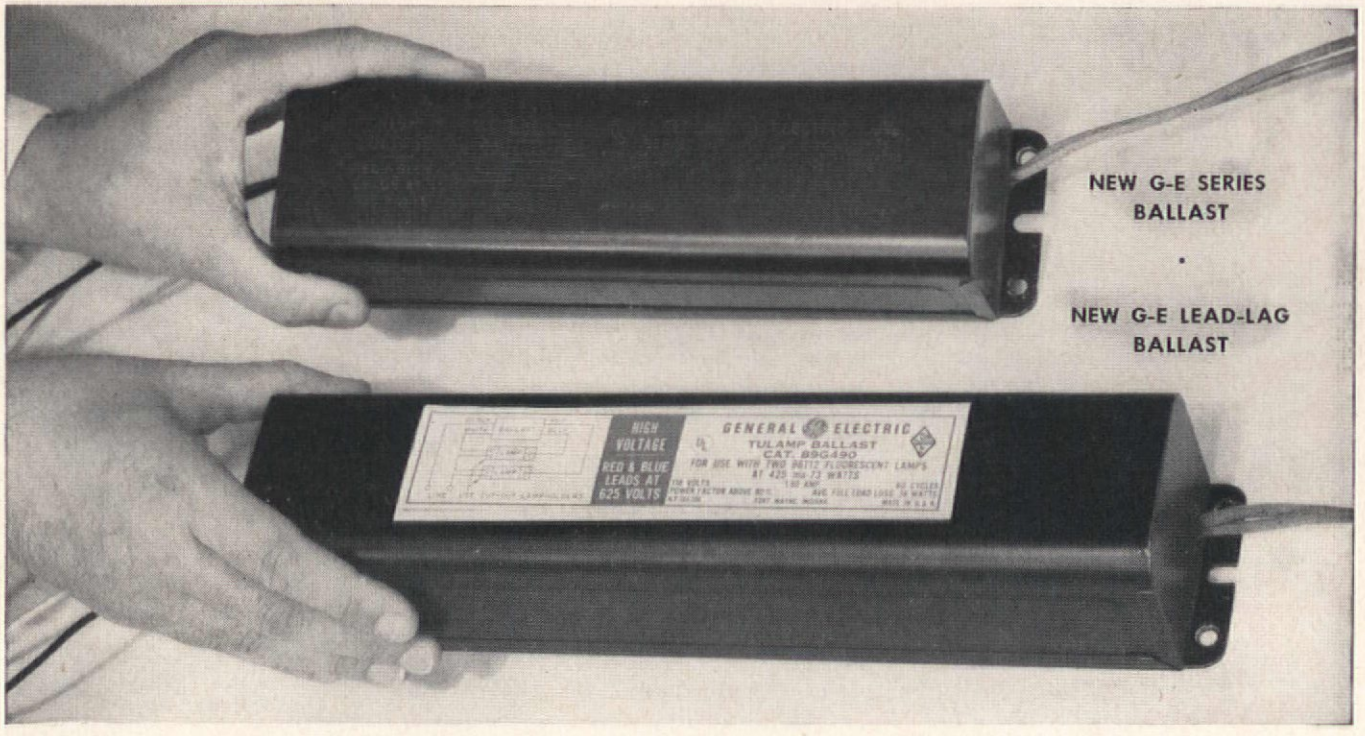
The bills considered would create an agency to coordinate programs of all Federal agencies for the purpose of (1) preventing overlapping and duplication of services and overbuilding of facilities; (2) determining the needs for existing or additional facilities of each department or agency; (3) determining areas and localities where additional facilities would be provided; and (4) developing over-all plans for facilities providing hospitalization and domiciliary care for persons who have served in the Armed Forces. No new project could be undertaken without board approval.

SCHOOL CONFERENCES GET SUPPORT OF HOUSE GROUP

The President's earlier recommendation that a White House conference round up national opinion on educational needs won quick House Labor Committee support. The group favorably reported a bill authorizing such a conference on educational problems. School construction needs were among the subjects mentioned as requiring further study.

But where the President had asked for $1.5 million to carry out the program, the committee allowed only $750,000, and trimmed each state's allotment from the recommended $10,000 to $5000. It made these amendments in the conviction that each state would be able and

(*Continued on page 286*)



New G-E Series and Lead-lag Ballasts ... Compare and Choose for Yourself

Here is a comparison of G.E.'s two new ballasts for operation of 96T12 lamps at 425 ma. Catalog No. 89G496 is the newly designed series ballast—smaller, lighter, quieter. Catalog No. 89G490 is the similarly redesigned lead-lag ballast.

BOTH BALLASTS ARE CBM CERTIFIED and contain that full measure of extra quality which G-E engineers into every ballast, but the series ballast, by its inherent design characteristics, gives you more value for your dollar. However, if you prefer lead-lag instead of series, the new lead-lag ballast has been designed to give you the most value compared to other lead-lag ballasts.

THE SERIES BALLAST gives you equivalent performance, in accordance with lamp specifications, and offers a substantial savings in cost and size. At right is a comparison of these two General Electric ballasts. The major areas of difference are printed in bold face. You can see that the series is less expensive, uses less line current, has less wattage loss, weighs less, has a quieter sound rating, is smaller and has less open circuit voltage.

Compare and choose for yourself.

For further information on either series or lead-lag ballasts, write to Section 401-6, General Electric Co., Schenectady 5, New York.

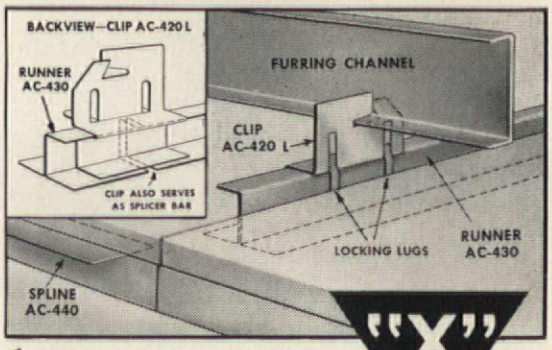
SERIES 89G496		LEAD-LAG 89G490
73	Nominal lamp watts	73
110–125	Circuit voltage	110–125
60	Frequency	60
1.55	**Line Current in Amps**	**1.60**
.425	Lamp Current in Amps	.425
28	**Watts Loss**	**36**
90%	Min line power factor	90%
$10.15	**List Price Each**	**$12.60**
6	No. Units per Package	6
65	**Approximate Ship weight**	**74**
D	**Sound Rating**	**E**
11¾	**Over-all length**	**14⅜**
11 9/64	**Mounting Length**	**13¾**
630	**Open Circuit Voltage**	**775**

Progress is our most important product

GENERAL ELECTRIC

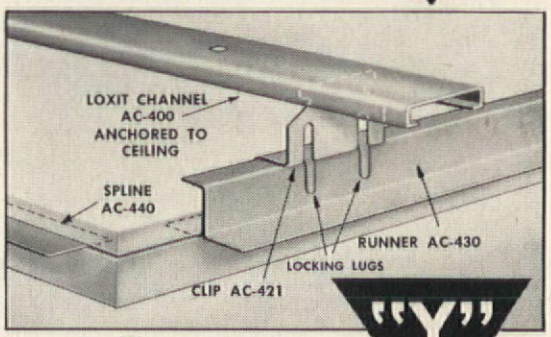
THE "XYZ" OF DEPENDABLE ACOUSTICAL SUSPENSION SYSTEMS

The new improved Loxit VICTORY Acoustical Suspension System is really three systems in one—"X" Regular—"Y" Surface Applied—and "Z" Combination. Used individually or in combination, this system meets *every* acoustical tile-setting condition. Type "X", shown at the right, was engineered to care for conditions where furring channels are being used as the supporting structural members for the suspension system. It is simple and easy to use.



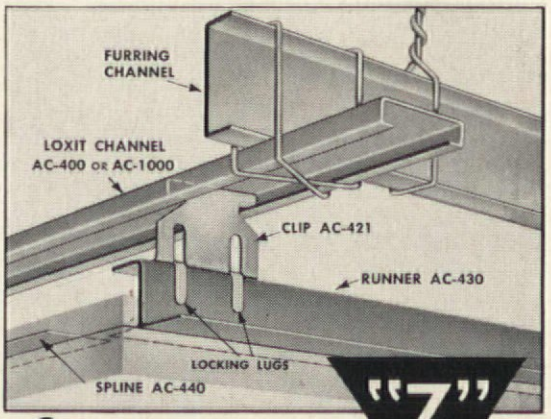
LOXIT *Victory Regular System* TYPE "X"

Type "Y" at the right illustrates how the Loxit Victory Surface Applied Acoustical Suspension System was designed to meet those conditions where no suspension is involved, with the tiles being applied directly to the ceiling, or to the bottom chord of bar joist or other structural sections. Using Loxit channels AC-400 or AC-1000 with Loxit clips AC-421, this type of installation becomes both simple and practical. Using ¾" tiles, the overall dimension from ceiling to face of tile is only 2-3/16".



LOXIT *Victory Surface Applied System* TYPE "Y"

Type "Z" shown here is the Loxit Victory Combination Acoustical Suspension System which embraces both Type "X" and Type "Y" and provides facilities for leveling the suspension members of the system by shimming between the Loxit channels AC-400 or AC-1000 and the furring channels. The Loxit channels serve to tie together the furring channels to add greater stability to the suspension structure as a whole. Because of its flexibility, Type "Z" can often be used to great advantage.



LOXIT *Victory Combination System* TYPE "Z"

A practical example: school rooms, Type "Y"—corridors, Type "X"—lobbies, Type "Z"

5 IMPORTANT MECHANICAL ADVANTAGES . . .

- Since clips AC-420 and AC-421 were designed to fit the bottom flange of cold rolled furring channels, only one clip is required regardless of size of channel.
- The clip fits the channel tightly because the groove of the clip and the locking lugs are both beveled.
- Clips AC-420 being right and left and clips AC-421 being reversible as well as the runners AC-430, right and left conditions are automatically provided for.
- Both AC-420 and AC-421 clips can be used as splices for runner AC-430—eliminating separate splicing clips.
- The runner's supporting flanges are single thicknesses of metal on both sides (the same thickness as the splines), reducing the thickness of the kerf in the tiles to that of a single thin saw blade, automatically assuring proper alignment of acoustical tiles.

Consult your architect—he can save you money, time, and trouble.

There is no acoustical tile-setting job that Loxit cannot solve!

Literature, samples and catalogs are available. Write Today!

LOXIT SYSTEMS, INC., 1217 W. WASHINGTON BLVD., CHICAGO 7, ILLINOIS

LOXIT SYSTEMS INC

IT LOOKS
IT IS **QUALITY**

it's

Stainless Steel

Schacht

TWINSTILE

Better Doors
for
Better Entrances

Wherever you see smart, modern entrances you're sure to see Schacht TWINSTILE doors. That's not surprising, for TWINSTILE is the one door that's built to keep its "quality look" for decades.

Remember: Schacht TWINSTILE doors are fully welded of heavy gauge stainless steel only

Schacht

FULITE

½" plate glass exposed edge doors. Available in stainless steel or bronze.

FRAMES in stainless or bronze would complete the package

see our catalog in ARCHITECTURAL FILE or write for copy

Write for illustrated literature and data sheets

SCHACHT ASSOCIATES, INC.

1175 E. 156th Street • New York 59, N. Y.

SCHACHT ASSOCIATES, INC.
1175 E. 156th St., New York 59, N. Y.
Gentlemen:
Please send illustrated literature and data sheets on
☐ **TWINSTILE** ☐ **FULITE**
NAME.....
COMPANY.....
ADDRESS.....CITY.....

HIGH COST LOOK

LOW COST CONSTRUCTION

Applied Arts Bldg., Univ. of Cincinnati
Frank E. Messer & Sons, Contractor. James E. Allen, Architect

Sonotube®

FIBRE FORMS

for round columns of concrete

For an architectural feature which meets all the principles of good design and sound economical construction, specify round concrete columns formed with SONOTUBE Fibre Forms.

Low cost SONOTUBE Fibre Forms are lightweight and easy to handle, require minimum bracing . . . take fewer man-hours on the job.

Beautiful, uniform, round columns of concrete formed with SONOTUBE cost less and look better!

Widely used by contractors, approved by architects and engineers everywhere.

Available in 31 sizes, 1" to 36" I.D.—up to 50' long. Can be ordered in desired length or cut to exact size on the job.

DENFORM, reusable capital form, designed for use with SONOTUBES. Write for details.

For complete technical data, write

SONOCO PRODUCTS COMPANY
Construction Products Division
LOS ANGELES, CAL. 5955 SOUTH WESTERN AVE.
HARTSVILLE, S. C. — MAIN PLANT
MONTCLAIR, N. J. 14 SOUTH PARK STREET
GARWOOD, N. J.
BRANTFORD, ONT.
AKRON, IND.

sonoco SERVES THE WORLD
PAPER CARRIERS
REG. U.S. PAT. OFF.

THE RECORD REPORTS

WASHINGTON

(*Continued from page 282*)

willing to bear any expense over and above that figure to hold a state conference on the subject.

States would use their Federal grants to bring together educators and others interested in educational problems, then try to come up with recommendations for action to be taken at local, state and Federal levels.

After the state conferences, opinion would be rounded up at a national White House conference on educational problems. The entire effort stresses cooperation at every level of government.

NEW EFFORT ON FOR AID TO LOCAL PUBLIC WORKS

There was a strong effort in the Senate to implement last year's law providing for Federal aid to states, municipalities and other political subdivisions.

Enacted as part of the law dissolving the Reconstruction Finance Corporation, the authorization called for the expenditure of $25 million in Federal Treasury funds to aid in financing projects under Federal, state or municipal law, either through direct loans or through purchase by the Federal government of securities and obligations of the local authorities.

The 1953 statute left it to the President to designate an agency to carry it out. This was not done, nor had the Budget Bureau asked Congress to make appropriations to get the program started.

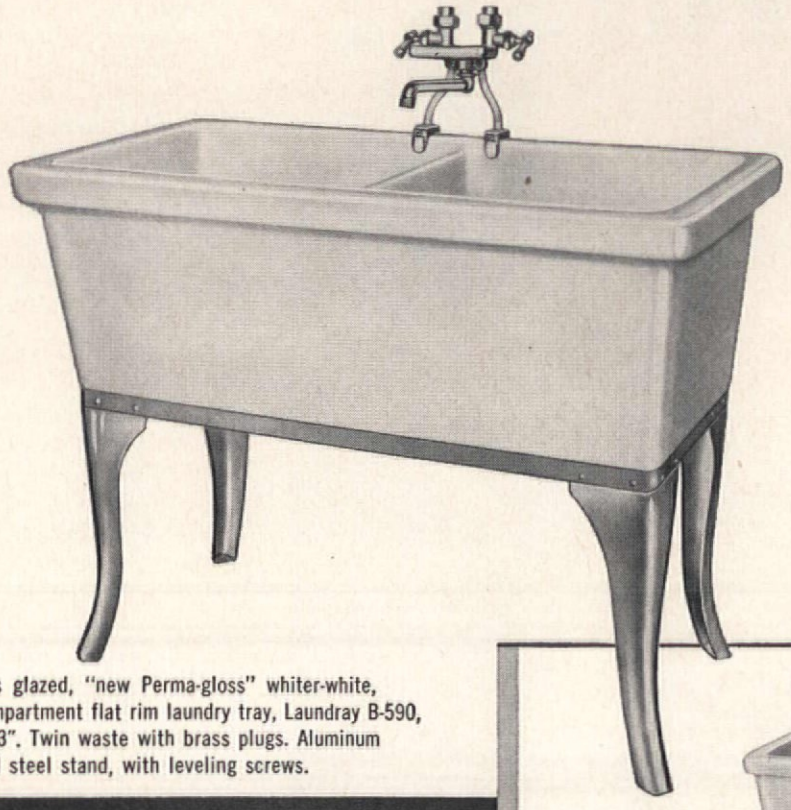
The lack of action disturbed Senator Burnet Maybank (D-S. C.), who introduced a new bill this year to designate the Housing and Home Finance Agency to handle the allotments and to increase the amount from $25 to $50 million. Senator Maybank claims the program could be a great stimulus to construction of non-Federal public works and go far toward providing community facilities needed to support new housing developments.

PHA TURNS ATTENTION TO PROJECTS' ARCHITECTURE

The Public Housing Administration is engaged in a campaign to adjust its poli-

(*Continued on page 288*)

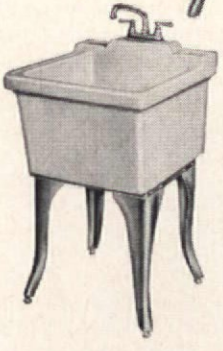
for the truly modern laundry room



a beautiful laundry tray in exclusive, sparkling, glass-hard "Perma-gloss"— **the LAUNDRAY** by Richmond

Vitreous glazed, "new Perma-gloss" whiter-white, two compartment flat rim laundry tray, Laundray B-590, 40" x 23". Twin waste with brass plugs. Aluminum finished steel stand, with leveling screws.

Deluxe B-584
40" x 23"—
two compartment, raised shelf back. Integral overflow, cast-iron twin waste connection. Brass plugs and rubber stoppers.



B-570—20" x 23"
single compartment, raised shelf back. Integral overflow, cast-iron waste connection, brass plug and rubber stopper.

Here's a fixture you can specify with complete confidence in your client's satisfaction. It's a gleaming beauty that will complement any utility room, kitchen or basement laundry. Its up-to-the-minute styling and shining, whiter-white finish harmonize with the washer and other appliances.

Available in three models; the new B-590 shown above, the Deluxe B-584 with raised shelf back, and the single compartment B-570, with raised shelf back, where space is limited. All in Richmond's exclusive vitreous glazed, glass-hard, "Perma-gloss" that Mrs. Housewife will be proud to have in her home.

AR-5

Richmond radiator co. Metuchen, New Jersey

RR RICHMOND
Affiliate of Reynolds Metals Company
PLUMBING HEATING

Please send me more information and literature on the Richmond Laundray line.

NAME

COMPANY

ADDRESS

CITY ZONE STATE

We are ☐ architects ☐ building contractors ☐ plumbing contractors ☐ plumbing wholesalers

Regardless of what other acoustical treatments you may employ to reduce noise transmission, you'll need a RIVERBANK *Sound Insulating* Door to *complete* the sound barrier. These scientifically constructed and patented doors isolate noise and prevent its passage from room to room in direct volume relation to the insulating value of the weakest acoustic area. RIVERBANK Doors are made in three laboratory certified decibel ratings to meet the full range of acoustical needs. They reduce transmission loss by 35, 40 and 43 decibels providing as much as 70% more acoustical efficiency than a standard solid core door. Write for complete architectural specification folder on RIVERBANK *Sound Insulating* Doors — plus special brochure in non-technical language for clientele use. Consult Sweet's File 15C/HA

HARDWOOD SOLID CORE DOORS

In addition to RIVERBANK *Sound Insulating* Doors, we specialize in producing solid core flush doors, fire doors, x-ray and shielded doors for all types of public and private buildings. Most important to you — all HARDWOOD Products Corporation Doors are *custom made for your job!* Consult Sweets.

NEW FOLDER Especially prepared in understandable sound-decibel language describes RIVERBANK Doors. Write for free copies.

OFFICES IN NEW YORK BOSTON CHICAGO CLEVELAND

HARDWOOD *PRODUCTS CORPORATION* **DOORS**

HARDWOOD PRODUCTS CORPORATION • NEENAH • WISCONSIN

THE RECORD REPORTS

WASHINGTON

(*Continued from page 286*)

cies and standards toward elimination of "unsightly projects" and is expecting "the same determined effort" on the part of architects — a development which is bound to elicit hearty (if somewhat incredulous) approval from architects — as well as some wry amusement.

Speaking rather as though only the architect's determined antipathy to the esthetic had heretofore blocked architectural progress in public housing, Commissioner Charles Slusser said in a recent speech:

"I concede that architectural design, like any other form of art, is subject to opinion. I concede, too, that to get the most for our money we must eliminate many esthetic touches. And finally, I concede that PHA must not undertake the role of arbiter of architecture. But let's be reasonable. Barracks are barracks. And we don't need a quorum of the American Institute of Architects to tell us so. We know — and in many cases it has been demonstrated spectacularly — that the will of architects and engineers to build attractively within any reasonable cost is possible."

Mr. Slusser then pledged that to whatever extent may be necessary, PHA policies and standards, "if they have contributed to the production of unsightly projects," will be corrected. In the same spirit, he added, PHA will expect "the same determined effort" on the part of architects.

Housing and Home Finance Agency Administrator Albert M. Cole has expressed complete agreement with Commissioner Slusser's views, telling the Congress that the greatest stigma on public housing has arisen from its exterior appearance, from which the general public gets its impression.

Commissioner Slusser, who has traveled extensively to visit public housing projects throughout the country, notes that many architects and builders find in the design and construction of public housing an opportunity far beyond the material reward: "They view it as a chance to contribute their highest skill to fellow humans denied so much for so long. And in doing their best, they benefit not only the tenants, not only the community, but themselves as well. The reputation for doing much with little is a good reputation to build."

(*Continued on page 292*)

for you, Mr. Architect!

ARKETEX

GIVES LASTING BEAUTY

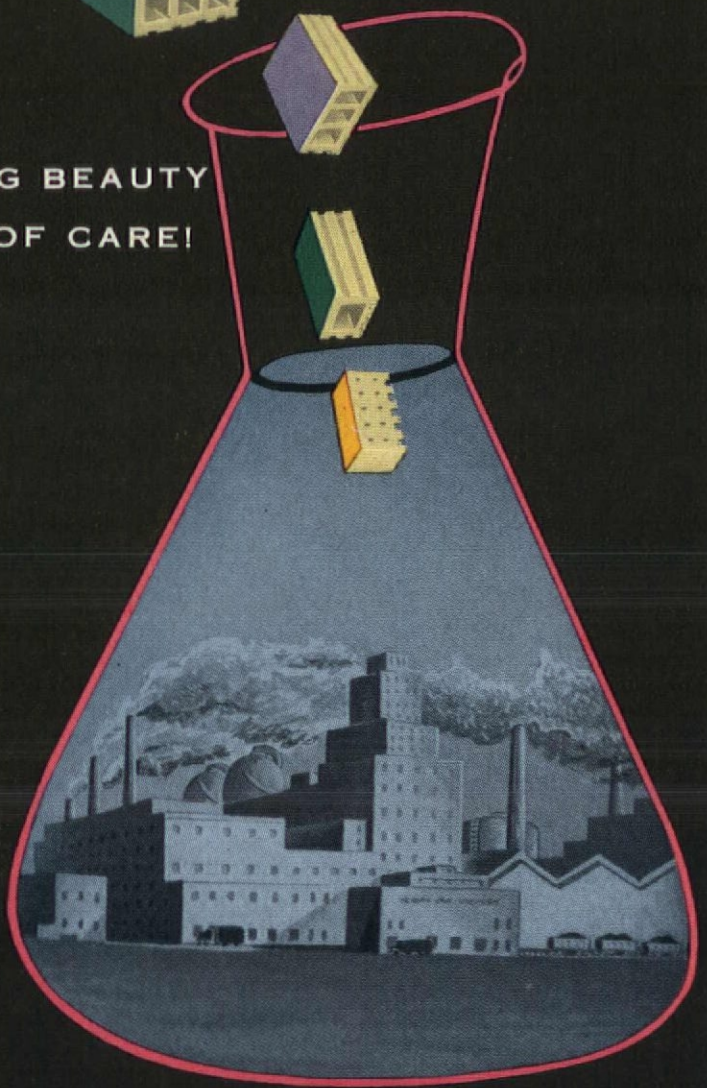
WITH A MINIMUM OF CARE!

Architects and builders have found *Arketex* Ceramic Glazed Structural Tile *most practical* for all types of buildings because Arketex is *most economical*. Look at the facts!

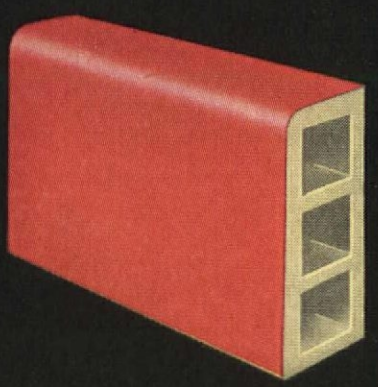
Arketex is a permanent wall and finish all in one, thus completely eliminating any need for periodic painting or refinishing. Grease, oils, acids or alkalis won't harm it . . . dirt and grime won't wear in . . . it won't crack, craze, scar or mar. Its glossy, satin-smooth finish stays beautiful forever.

Arketex is available in the world's most complete line of shapes, fittings and colors . . . custom-made to your exact specifications in unlimited quantities.

Write today for our Complete Line Catalog and the name of your ARKETEX distributor!



FIRST COST IS THE ONLY COST!



ARKETEX

"First with the Finest"

CERAMIC GLAZED STRUCTURAL TILE

ARKETEX CERAMIC CORPORATION

BRAZIL, INDIANA

THE WORLD'S LARGEST EXCLUSIVE MANUFACTURER OF CERAMIC GLAZED STRUCTURAL TILE

for entrance and vestibule doors and all interior doors

GO MODERN with RIXSON

CONCEAL the closer and expose the beauty of the door.

Yes, for ALL the doors . . . heavy and light . . . from entrance to interior room doors . . . specify the unseen power that automatically controls the door closing action every inch of the way, firmly bringing the door to a quiet rest at closed position. No unsightly mechanism exposed to dangers of tampering and accidents or to gather dirt and dust.

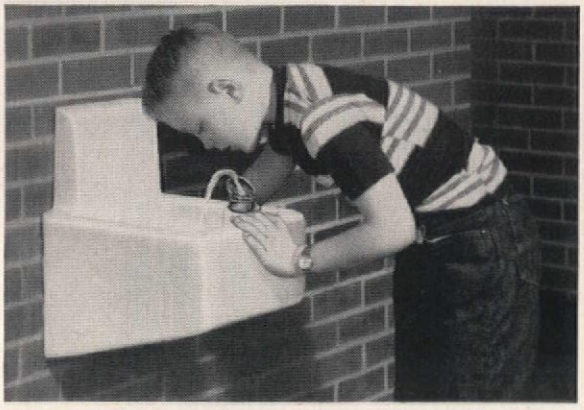
Specify RIXSON . . . the original floor type closer . . . the "strongest of them all."

THE OSCAR C. RIXSON COMPANY

4450 west carroll avenue • chicago 24, illinois

How CRANE helps you in school planning

Crane specialized washroom and laboratory fixtures for schools match the smart efficiency of modern school buildings. In fact, Crane leads in specialized styles and sizes to fit elementary and high school plans. And, of course, the wide choice of Crane prices makes it easy to fit Crane equipment into any school budget as well as any school plan.



Crane school fountains are of the highest quality vitreous china. This Crane Waterfall, one of a wide choice of both wall and floor models, includes Crane's famous Purflo angle stream bubbler to prevent contamination. Individual or central water chilling units now available with Crane drinking fountains.

Typical of the wide choice of Crane school fixtures are these Rhodile lavatories of rugged cast iron and durable porcelain enamel finish. High splash back is particularly important aid to cleanliness in elementary schools.

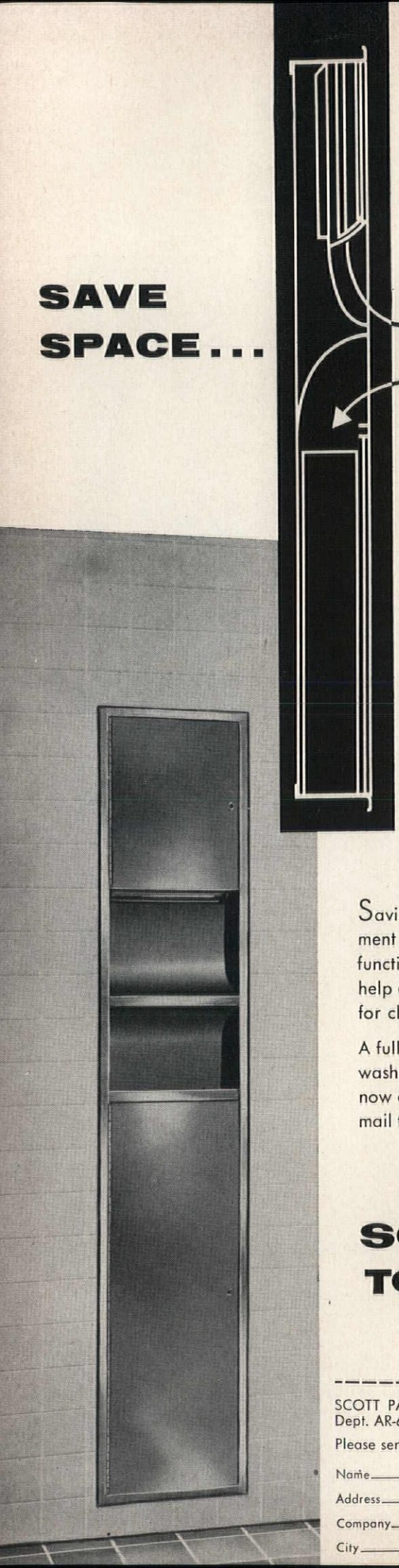
Besides a comprehensive choice of specialized school fixtures, Crane offers you the advantage of its unmatched reputation for quality—which is well known to school administrators. When you specify Crane equipment, they know you have recommended the best.

For complete information on Crane specialized school fixtures, see your Crane Architects' Catalog . . . or call your nearby Crane Branch or Wholesaler.

CRANE CO.

GENERAL OFFICES: 836 SOUTH MICHIGAN AVE., CHICAGO 5

VALVES • FITTINGS • PIPE • PLUMBING AND HEATING



Saving space is an important element in washroom design. Modern, functional, Scott-designed Fixtures help eliminate traffic-jams—make for cleaner, easier maintenance.

A full-color booklet on functional washroom design and planning is now available. For your free copy, mail this coupon today.

SCOTTISSUE®
TOWELS
Symbol of the right kind of washroom

SCOTT PAPER COMPANY
Dept. AR-6, Chester, Pa.

Please send me your full color booklet.

Name_____

Address_____

Company_____

City_____ State_____

THE RECORD REPORTS

WASHINGTON

(*Continued from page 288*)

Doing much with how little?

The average cost last year per room of public housing constructed was $1664. This was on the basis of cost of the dwelling and equipment, plus a five per cent contingency allowance, and was well under the $1750 per room limit specified in the law. (The law provides that with PHA approval a limit of $2500 is permissible wherever there is solid justification for high construction costs. As the Commissioner points out, the $1664 per room average shows that the high cost exceptions were few last year.)

In its new concept of public housing appearance, PHA stands for construction of projects rather than individual units scattered throughout a rundown city area, on the theory that the construction of many good and attractive houses at one location provides a decided advantage in changing the character of a neighborhood.

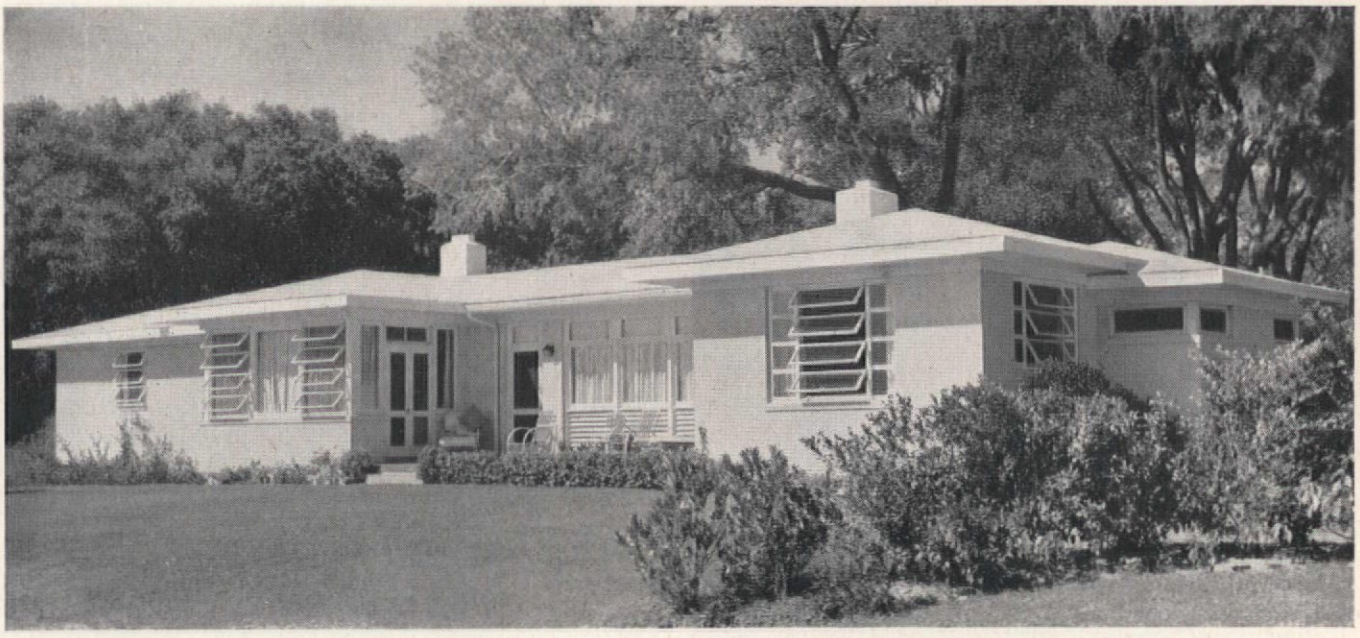
Mr. Slusser views it this way: "A complete public housing dwelling unit, including every cost, could be built last year for $10,800 — that was the average in a study of 257 projects. Now, suppose that that much money could be dribbled out on scattered houses in a slum area. Individual houses would be at the mercy of the vicious forces that made the area sub-standard. On the other hand, a housing project of 200 units or more is the sort of sledge-hammer blow that makes blight retreat, that establishes a base of operations from which we can move on to rehabilitation, and a rebirth of the moral forces which make a city's run-down areas come to life again, take on new hope."

BRAB LAUNCHES SURVEY OF CLIMATE DATA NEEDS

The construction industry may soon join other industries making regular use of weather data. The Building Research Advisory Board has announced that its Climatic Research Committee has started a survey of its members' respective organizations to determine what kind of climatic information is needed in their practices.

The whole effect was initiated earlier this year in a meeting of the committee with Dr. F. W. Reichelderfer of the U. S. Weather Bureau and his staff. Dr. Reich-

(*Continued on page 296*)



Used with picture windows and fixed side lights, Gate City offers unlimited design possibilities.

Window Versatility in Contemporary Architecture

Gate City Wood Awning Windows are outstanding in the trend toward simplicity and functional beauty. Versatile, they can be used in almost limitless combinations. Their smart design and clean horizontal lines give any dwelling a distinct, modern appearance. And they provide the home-owner with advantages for year 'round comfort.

During warm weather, the full-vent area of Gate City windows permits complete ventilation control . . . invites fresh air from three directions. And the patented "Fixed Hinge" affords maximum rain protection. On colder days, the tight wood sash and complete weatherstripping keep **all** the warm air in . . . the cold weather out!

Perma-Treated for long life . . . designed for economical installation and maintenance, the Gate City Wood Awning Window is steadily gaining favor with home builders everywhere. Complete information will be promptly furnished upon request.

See our Catalogue in Sweet's.

Gate City AWNING WINDOWS

Perma-treated for Long Life

"Window Craftsmen for over 40 years"

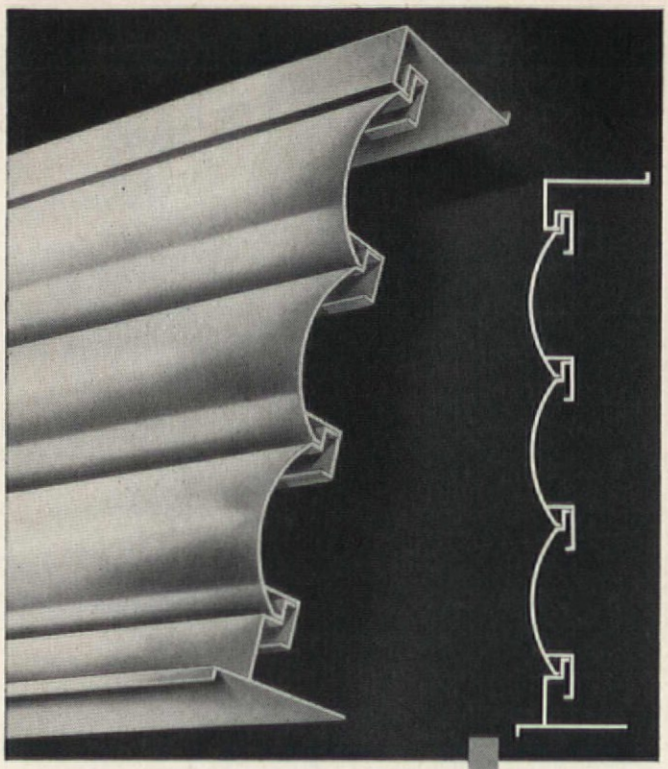
GATE CITY SASH & DOOR CO., Dept. AR-35
P.O. Box 901, Fort Lauderdale, Fla.

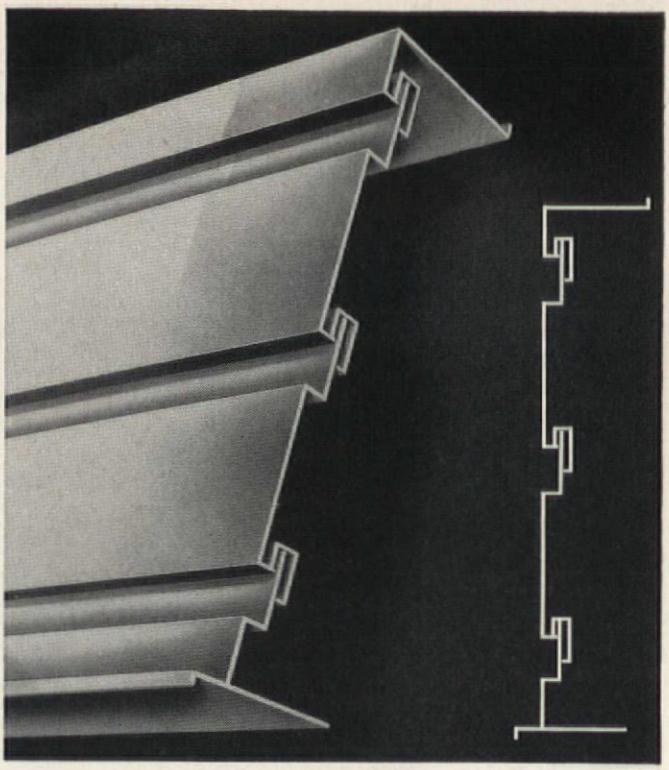
Gentlemen: Please send complete information on Gate City Wood Awning Windows.

Name _____

Address _____

City _____ **Zone** ____ **State** _____

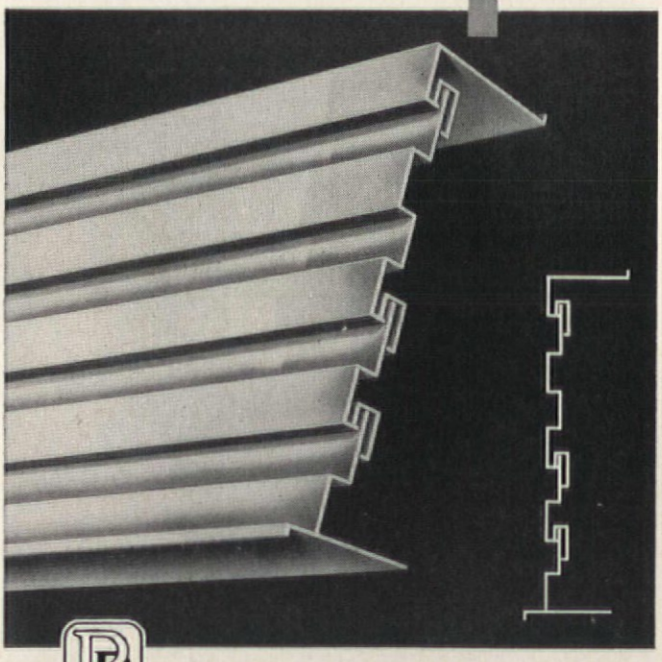


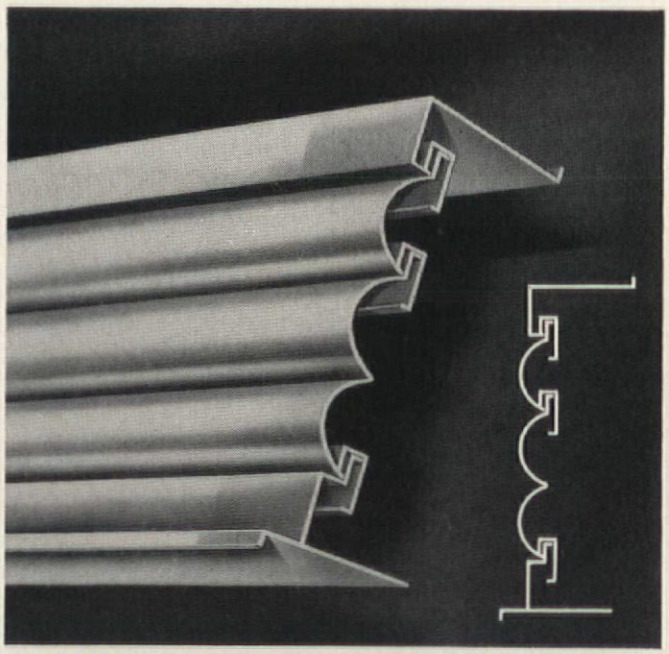


Pittco

EXTRUDED MOULDINGS

. . . can be made up in your choice of attractive patterns. For all the Pittco Store Front Metal profiles have been designed to enable you to combine these mouldings into many handsome patterns, a few of which are shown here. These mouldings are carefully extruded to produce a smooth finish, sharp lines and rigid construction. See Sweet's 1954 Architectural File 20/Pi (A.I.A. File No. 26-D).



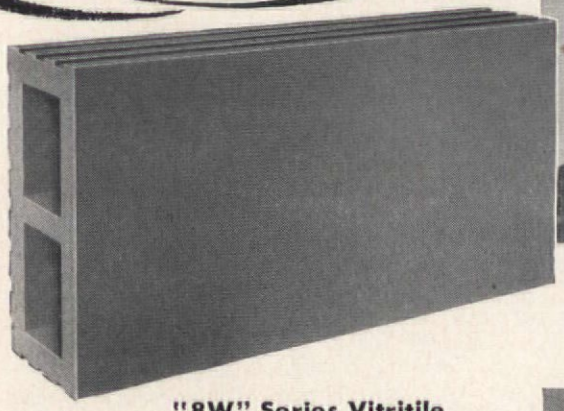


PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

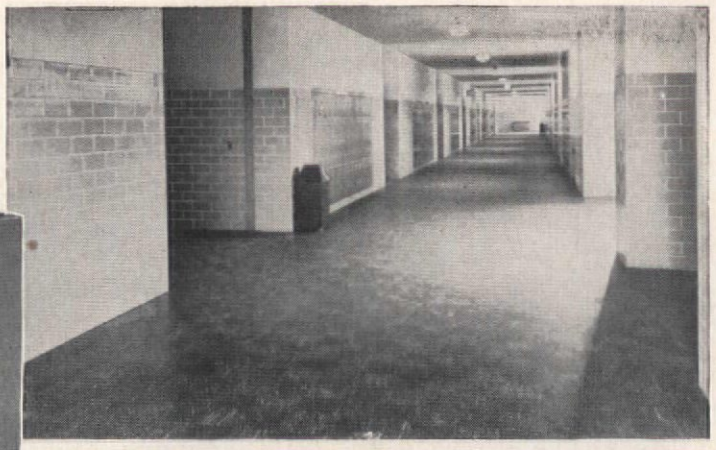
IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

The Double Feature building material



"8W" Series Vitritile

Features ground edges—for uniform, narrow mortar joints; and large unit face size (nominal 8" x 16")—for a minimum number of joints in the wall.

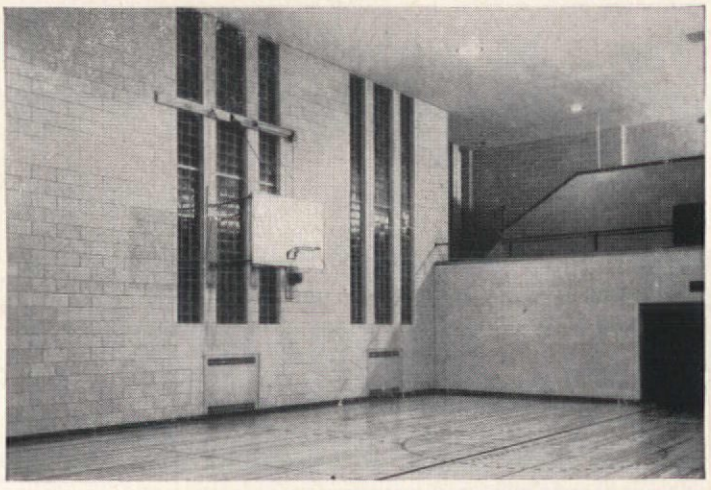


Natco "6T" Series Vitritile in Shades Valley High School, Homewood, Alabama
Architects: Van Keuren, Davis & Company

NATCO structural ceramic glazed

VITRITILE

builds strong, load-bearing walls with interior finish of life time beauty— all in one operation



Natco "8W" Series Vitritile in Wauwatosa High School, Wauwatosa, Wisconsin
Architects: Herbst & Kuenzle

Many schools throughout the country are enhanced with Natco Structural Ceramic Glazed VITRITILE—the one building material with a double-barreled construction advantage . . . builds a sound structural wall *plus* a colorful, everlasting wear-proof interior finish—all in one operation!

In lunchrooms, class rooms, locker rooms, corridors, gymnasiums and cafeterias, this versatile material is being specified for its ability to withstand dirt, vandalism and marring. And it will look as beautiful years ahead as it does when erected—inexpensive washing with soap and water is all the maintenance it ever needs.

Architects, builders and contractors are sold on the many service advantages of durable Natco Vitritile. There's less labor, less cutting, less material waste at erection. This flexible unit adapts to any design idea—offers a wide selection of colors too. Put double-feature Natco Structural Ceramic Glazed Vitritile to work on your school building jobs. Time-tested installations prove it lowest in cost over the years.

17 STRATEGICALLY LOCATED CLAY PLANTS

NATCO CORPORATION

General Offices: 327 Fifth Avenue, Pittsburgh 22, Pa., Telephone: GRant 1-9370

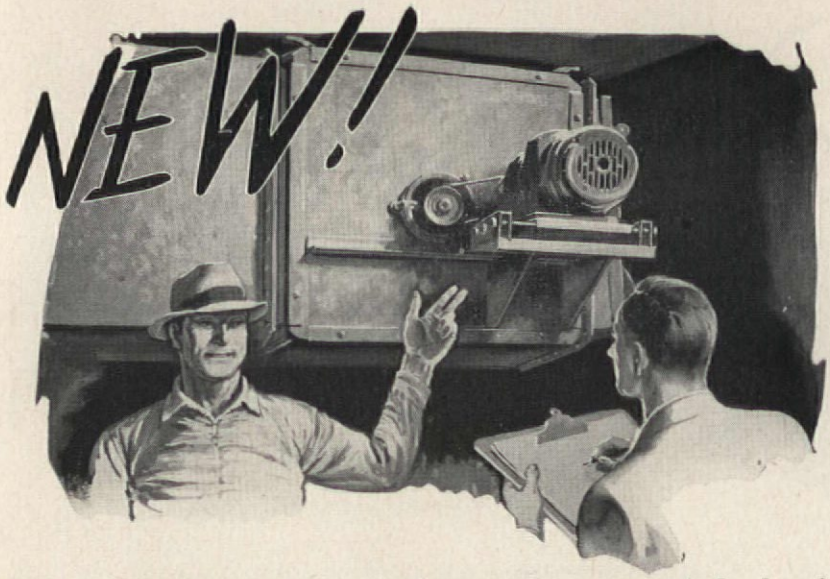
DISTRICT SALES OFFICES

Boston (16), Mass., 20 Providence St., Tel. HUBBARD 2-3549–2-3556
Chicago (6), Ill., 205 West Wacker Drive, Tel. FRANKLIN 2-5754
Detroit (2), Mich., 2842 W. Grand Blvd., Tel. TRINITY 3-0310
New York (17), N. Y., 205-17 E. 42nd St., Tel. MURRAY HILL 4-1922
North Birmingham (7), Ala., P. O. Box 5476, North Birmingham Station Tel. BIRMINGHAM 4-1881
Philadelphia (2), Pa., 1518 Walnut St., Tel. PENNYPACKER 5-5112
Pittsburgh (22), Pa., 327 Fifth Avenue, Tel. GRANT 1-9370
Syracuse (10), N. Y., 225 Kensington Place, Tel. SYRACUSE 76-1569
Toronto (5), Ontario, Canada, 57 Bloor Street, West

FTI

there is no substitute for NATCO QUALITY CLAY PRODUCTS SINCE 1889 *structural clay products*

PRODUCERS' COUNCIL



"This Wing Draft Inducer is great! I don't have to touch it—never have to lubricate it—it never requires attention"

The new Wing Draft Inducer has many unique features:

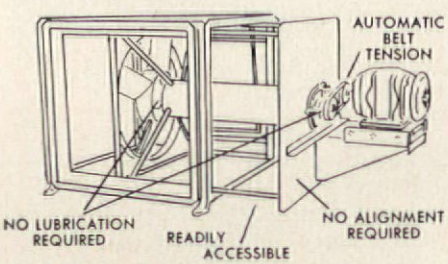
★ Gas Inlet may be at top, bottom or any side—may easily be changed in the field.

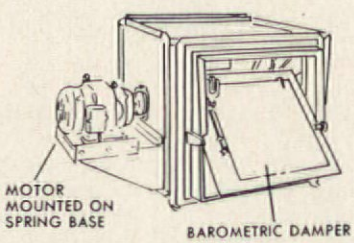
★ Unit may be withdrawn from casing for inspection or service.

★ No lubrication required—Pre-sealed bearings air-cooled.

★ No alignment required—no need for field alignment before start-up.

★ Motor belt always at correct tension.



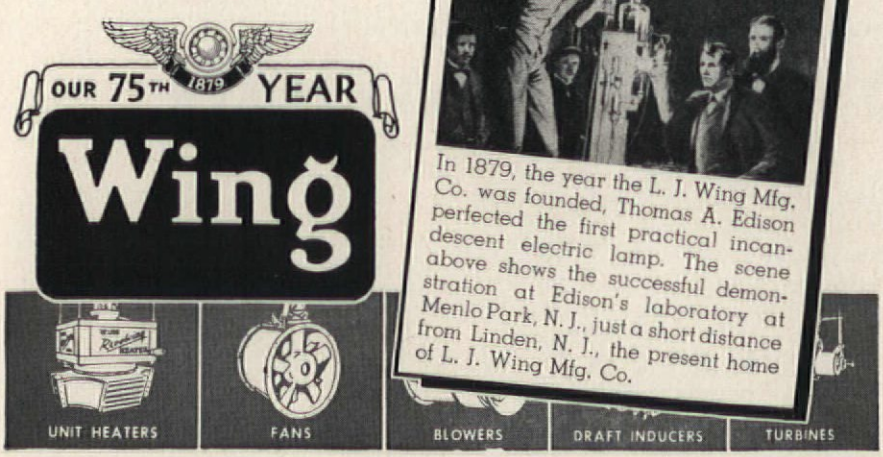


L. J. Wing Mfg. Co.

151 Vreeland Mills Road
Linden, New Jersey

Factories at Linden, N.J. and Montreal, Canada

Write for a copy of Bulletin I-52



SEVENTY-FIVE YEARS AGO

In 1879, the year the L. J. Wing Mfg. Co. was founded, Thomas A. Edison perfected the first practical incandescent electric lamp. The scene above shows the successful demonstration at Edison's laboratory at Menlo Park, N. J., just a short distance from Linden, N. J., the present home of L. J. Wing Mfg. Co.

THE RECORD REPORTS

WASHINGTON

(*Continued from page 292*)

elderfer told the BRAB committee that data could be furnished to all parts of the building and construction industry, just as it is now to agriculture, aeronautics and other pursuits, if the needs were discovered.

BIG DEMAND IS EXPECTED IN INDUSTRIAL BUILDING

The U. S. Chamber of Commerce analyzed plant and equipment expenditures over several past decades and concluded there is "a real and large demand" for additional construction of this kind. While industrial construction has topped $2 million for the past three years, expenditures for industrial plants have actually lagged far behind investments in other capital goods.

For example, after allowance for price changes the average amount of new plant construction for the eight years after World War II was $1.59 billion compared with $1.26 billion after World War I, a gain of 26 per cent. By contrast, industrial production increased 156 per cent on a comparative basis. In these same periods, plant building also lagged behind the increase in gross national product.

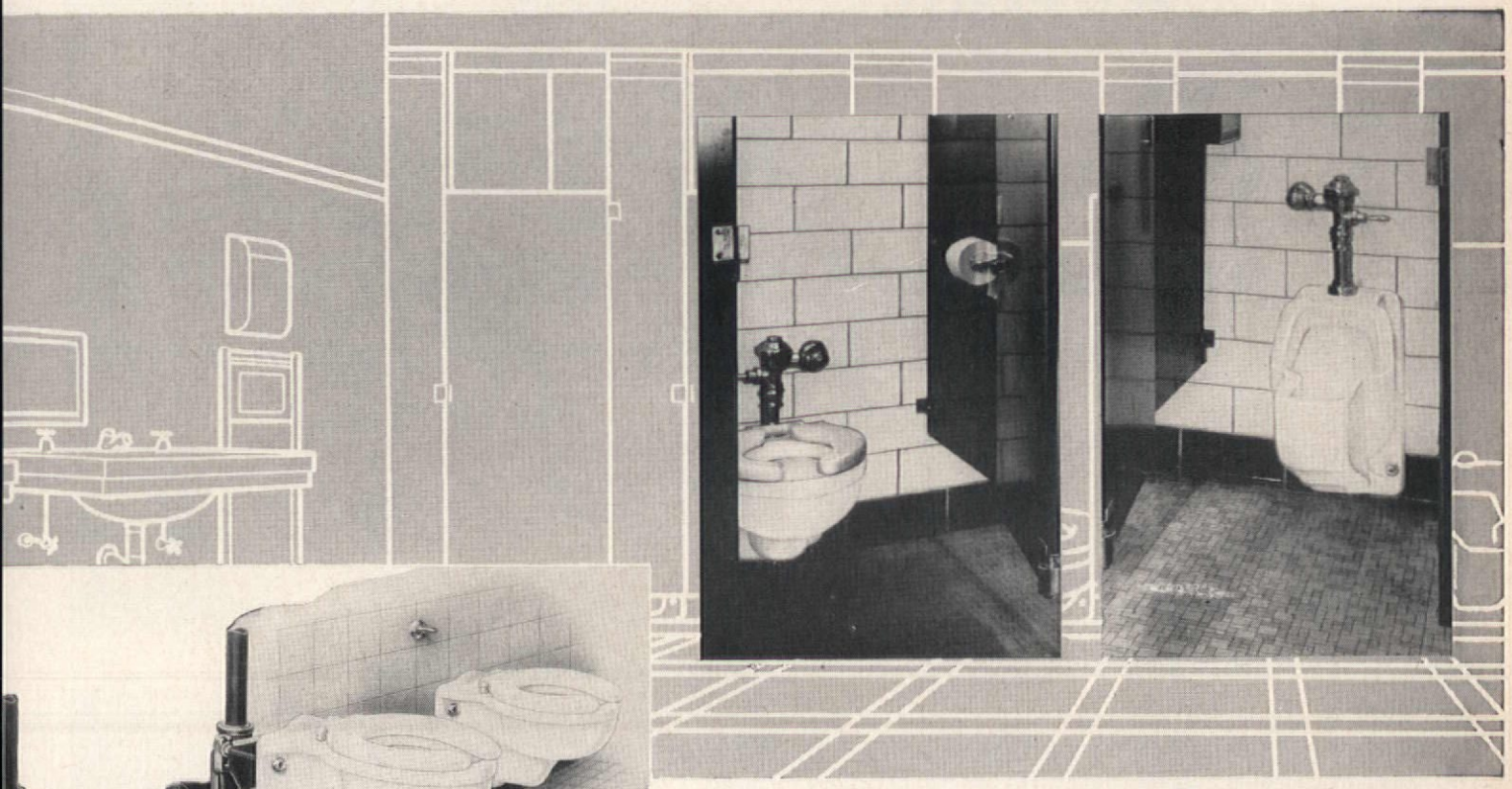
In relation of over-all spending to capital goods, the Chamber said, the amount for new plants appears to be off as much as one third from the first postwar era to the second. It was believed the reason lay rather in the relatively greater increase in construction costs than in machinery costs. Another factor would be the ability of industry to make more efficient use of existing space by buying modern machinery and making improvements through installation of better lighting, air conditioning, etc.

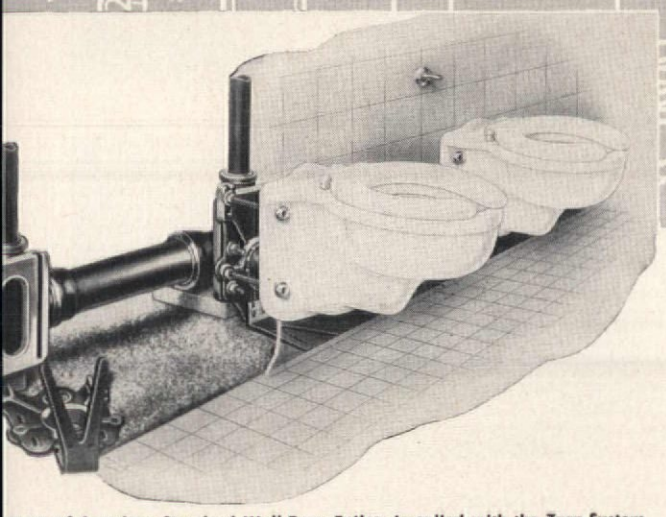
PROPOSE LOAN INSURANCE FOR HOSPITAL BUILDING

The House Interstate Commerce Committee last month launched legislation proposing FHA-type loan insurance for the construction of hospitals and other medical facilities. It held hearings on Representative Wolverton's (R—N. J.) bill H. R. 7700 calling for a medical facilities mortgage fund to be used by U. S. Public Health Service in carrying

(*Continued on page 300*)

This combination GIVES GREATER FLEXIBILITY FOR PLANNING WASHROOMS...*insures against untimely obsolescence*





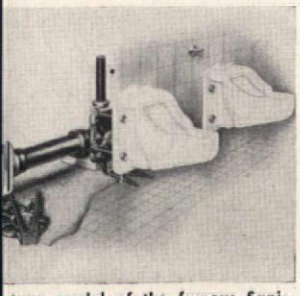
attery of American-Standard Wall-Type Toilets installed with the Zurn System
h relieve the wall of all the load! There is a Zurn System for every wall-type
bing fixture—lavatory, toilet, urinal, sink and fountain.

AMERICAN-Standard
off-the-floor plumbing fixtures
INSTALLED WITH THE ZURN system*

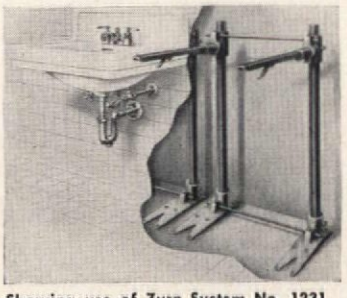
Greater flexibility in design and construction—in the choice of floor and wall constructions and in height of ceiling—flexibility that can result in a gain of more usable floor space. When you use American-Standard Off-The-Floor Plumbing Fixtures installed with a Zurn System, you will find unrestricted opportunity to exercise your imagination, skill and ingenuity in planning modern washrooms that will win both owner and user approval. This combination opens the way to major savings in the over-all cost of a building and usually reduces the day-to-day, dollar cost of washroom maintenance by as much as 25 to 30%.

J. A. ZURN MFG. CO. • PLUMBING DIVISION, ERIE, PA.

AMERICAN RADIATOR & STANDARD SANITARY CORPORATION, PITTSBURGH, PA.



-type model of the famous Sani-
d Urinal—a urinal especially
gned for women by American-
dard. It is installed with a Zurn
m especially designed for this fix-
which lifts sanitation in public
hrooms to an all-time high and
ces maintenance cost.



Showing use of Zurn System No. 1231 for installing American-Standard Lucerne Wall-Type Lavatory Fixture. Zurn Systems for wall-type fixtures reduce wall thickness and are usable with all types of wall construction.

WRITE FOR THESE FREE BOOKLETS

ese booklets present up-to-date factual infor-
tion for planning Modern Washrooms.

rk Reg. U.S. Pat. Off.

J. A. ZURN MFG. CO., PLUMBING DIVISION, ERIE, PA. U.S.A.

Please send me the two booklets on Modern Washrooms, "You Can Build It and Maintain It for Less A NEW WAY," and "The American-Standard Better Rest Room Guide."

Name and Title .....

Company .....

Street .....

City and State .....

Please attach coupon to your business letterhead. Dept. AR 723

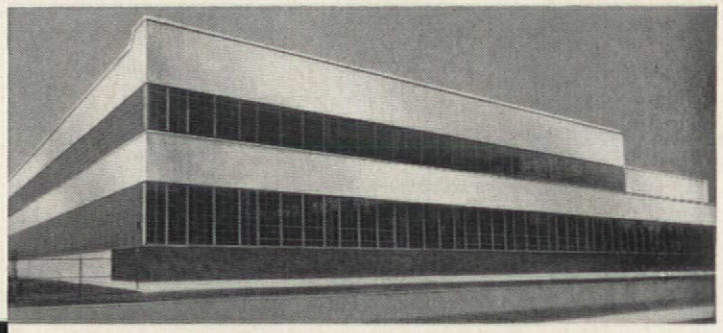
Design For Cutting Costs...

ReynoSide

low-cost, maintenance-free aluminum in modern architectural form

Modern appearance *and* cost-cutting efficiency... you get both in this industrial siding. The lightweight strength of ReynoSide makes possible structural economies... assures low installed cost. Its freedom from rust and resistance to corrosion mean long life with lowest maintenance.

High radiant heat reflection (up to 95%) helps cut the cost of year-round temperature control. The net result is low initial outlay and cumulative savings through the years! Write for literature.



A complete installation service is available. For name of nearest jobber-erector, call the Reynolds office listed under "Building Materials" in classified phone books of principal cities. Or write to Reynolds Metals Company, Building Products Division, 2015 S. Ninth St., Louisville 1, Ky.

SPECIFICATIONS:

Two Ribbed-Embossed Designs:

Ribs: 4" and 8" center-to-center; 1" depth.
Thickness: .032" (8" Rib also in .040").
Width: 41⅝". Nominal coverage, 40".
Lengths: Up to 14'5½".
Finish: Stipple-embossed.
Weight: 59 lbs. per 100 sq. ft.

Reynolds *Lifetime* Aluminum Industrial Corrugated also available in sheets 48⅛" wide, lengths up to 12'.

SEE "MISTER PEEPERS," starring Wally Cox, Sundays, NBC-TV Network.

REYNOLDS ALUMINUM

BUILDING PRODUCTS

modern gymnasium-auditoriums deserve "the finest floor that grows"

"foot-friendly"

NORTHERN HARD MAPLE

The multi-purpose room, so characteristic of the modern school building, ought always to be floored with Northern Hard Maple. And for reasons that aren't mere whims or opinions.

As a gym floor, no other wood and no mere floor *covering* serves so well, so long, with such universal satisfaction on the part of players, coaches and trainers. Northern Hard Maple is highly *resilient*—resists dents and mars. Court-lines stand out sharply on its bright surface. It's smooth, tight, enduring. It's "foot-friendly"—has a "live" instead of a "dead" feel. Routine maintenance is easy, re-surfacing quick and simple.

And for other purposes, your Maple floor is, invariably, either better or equally acceptable. Cost of MFMA-certified Maple, especially in the handsome, thoroughly sound Second-and-Better grade (popularly known as "the gymnasium grade") is no more than most substitutes—often less. Maintenance is cheaper, service life *much* longer, satisfaction *much* greater. This, gentlemen, is a fair and true statement of the case. We believe you'll agree it points to Maple emphatically as the prudent choice.

ABOVE—Oak Lawn Community High School, Oak Lawn, Ill. Madden & Connor, Architects, Harvey, Ill. Flooring, Northern Hard Maple.

See Sweet's
(Arch. 12k-MA) or write for AIA data file folder and latest listing of MFMA-approved floor finishes and methods.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Suite 550, Pure Oil Building, 35 East Wacker Drive, Chicago 1, Illinois

FLOOR WITH *NORTHERN* HARD MAPLE
BEECH AND BIRCH

WASHINGTON (*Cont. from p. 296*)

out the mortgage insurance terms of his measure. A revolving fund of $2.5 million would be authorized, but the amount of all insured mortgages outstanding could not exceed $1 billion, except with Presidential approval.

The plan would apply only when the local sponsor was a nonprofit private agency or similar group. The insurance would be held to cover not more than $5 million on any one project, and interest rates would be placed at six per cent, or six and one half per cent if the Surgeon General found the mortgage market demanded it.

Representative Wolverton was convinced his bill would result in a tremendous expansion and extension of medical care services and facilities. The system would finance hospitals and other medical facilities used on connection with voluntary prepayment health plans.

Meanwhile, Secretary of Health, Education and Welfare Oveta Culp Hobby told a Senate labor subcommittee there had been a net loss in number of acceptable hospital beds for patients with chronic diseases. The Hill-Burton hospital construction program, valuable as it is, has not yet provided a balanced answer to the nation's needs for hospital and health facilities, she stated. The shortage is expensive in that it has led to the crowding of chronically ill patients into general hospitals which are more costly to operate and are needed for patients with acute conditions.

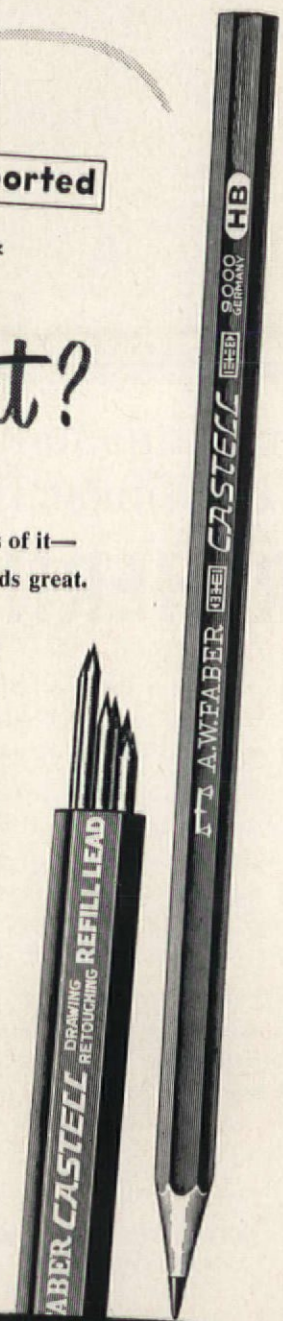
what makes imported CASTELL* great?

Experience—193 years of it—
makes CASTELL Drawing Pencils and Leads great.

As you guide it on your drawing board with swift, bold strokes—the accumulated genius of almost two generations helps you achieve outstanding results.

On every count—smoothness, freedom from hard spots, opacity, strength, economy and "blueprintability"—CASTELL stands out like a giant among pygmies.

Give your creative ability the advantage of the *best* . . . and only a penny or two more brings you the best. Do as the Masters have been doing for generations—use CASTELL Drawing Pencils and Leads.



CASTELL
the drawing pencil
with the Master Degrees

9030 Imported CASTELL Lead—7B to 10H—with the same unique qualities that made CASTELL 9000 wood-encased pencil famous.

A.W. FABER-CASTELL PENCIL COMPANY INC., NEWARK 3, N. J.

*Imported from West Germany

AIRPORT AID MAY RESUME WITH SOME MODIFICATION

There appeared to be good prospects that new life would be breathed into the dormant airport construction program. The Department of Commerce asked for new money for fiscal 1955 — approximately $30 million — to pick up the program that was suspended last year.

The new plan, however, might exclude Federal aid for construction of air terminal buildings, thus narrowing the range of the architect's participation.

A study has recommended several changes in the reactivated program. For one thing, it was suggested that the basic standards for determining eligibility of specific projects should be tightened substantially. Criteria of national aeronautical importance would be used. Also, it was proposed to increase the discretionary fund that can be spent by the Civil Aeronautics Administration without fixed geographical apportionment. This, it is felt, would permit more flexible administration of the program in accordance with over-all national needs.

The suggestion that terminal buildings be excluded was made to give the agency more opportunity to concentrate on facilities such as runways and lighting, it was said.

NO SPECIAL SHELTERS IN FCDA EVACUATION PLANS

The Federal Civil Defense Administration has no plans presently for new shelter construction to house persons evacuated from metropolitan centers in event of enemy attack.

This does not mean the agency is not giving attention to the problem. Under

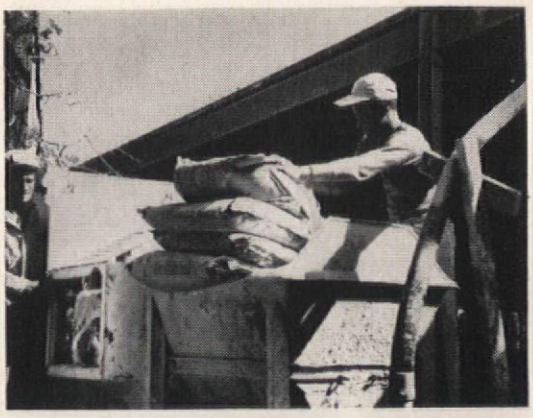
(*Continued on page 304*)

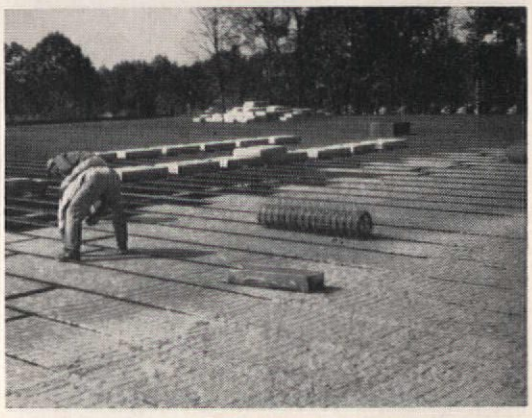
"Great Strength, Outstanding appearance"

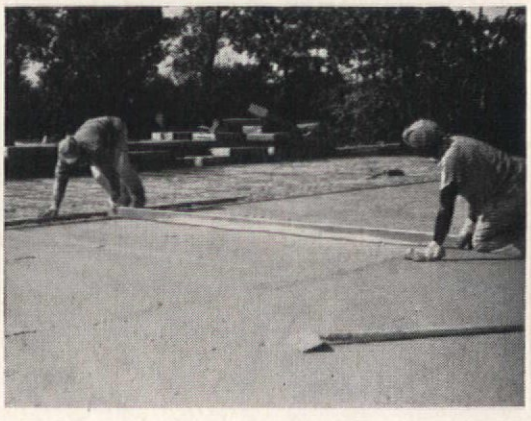
—THAT'S WHAT THIS ROOFING APPLICATOR SAYS ABOUT

Certain-teed Metro-Mix

REG. U.S. PAT. OFF.







Shipping, Stock and Related Activities
Prentice-Hall, Inc.
Englewood Cliffs, N.J.

Architects:
Kahn & Jacobs
New York, N.Y.

Contractor:
Jos. L. Muscarelle, Inc.
Hackensack, N.J.

Applicator:
Eastern Fireproofing Co., Inc.
Wakefield, Mass.

Metro-Mix is a poured-in-place gypsum roof deck that offers specific, and important, advantages wherever a light, strong, fireproof roof deck is desired.

Of this job for Prentice-Hall, Inc., which required 150,000 feet of Metro-Mix, R. J. Albert, Eastern Fireproofing Co., writes:

"The uniformity of your product, its yield and finishing qualities, assisted us in delivering a deck of great strength and outstanding appearance. It was particularly well suited to the high-speed precision mixing and pumping operation which we use.

"... The job was carried out to the complete satisfaction of Jos. L. Muscarelle, Inc., Contractor, who has forwarded to us a letter of commendation."

That is a strong recommendation indeed. It is just one of many that Metro-Mix has now earned—from roofing applicators, contractors and architects. It is one well worth remembering whenever *your* plans call for roof decking. Write for complete information on Certain-teed's Metro-Mix now.

GYPSTEEL PLANK

Certain-teed also makes Gypsteel Plank, a pre-cast gypsum roof deck reinforced with steel. Gypsteel Plank is light, strong, tongued and grooved for quick, easy assembly. Plank size: 2" x 15" x 10'. Write for details.

Certain-teed

REG. U.S. PAT. OFF.

Quality made Certain... Satisfaction Guaranteed

Certain-teed BUILDING PRODUCTS 50th YEAR

CERTAIN-TEED PRODUCTS CORPORATION

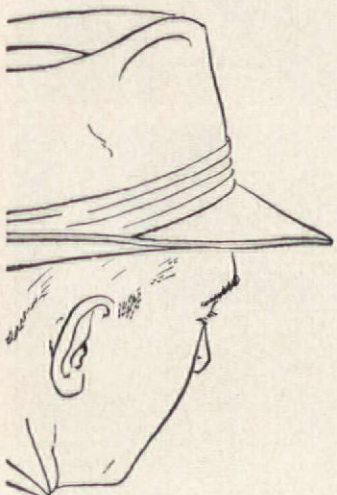
ARDMORE, PENNSYLVANIA

EXPORT DEPARTMENT: 100 EAST 42ND ST., NEW YORK 17, N.Y.

ASPHALT ROOFING • SHINGLES • SIDINGS • ASBESTOS CEMENT ROOFING AND SIDING SHINGLES • GYPSUM PLASTER • LATH • WALLBOARD • SHEATHING • ROOF DECKS • FIBERGLAS BUILDING AND ROOF INSULATIONS

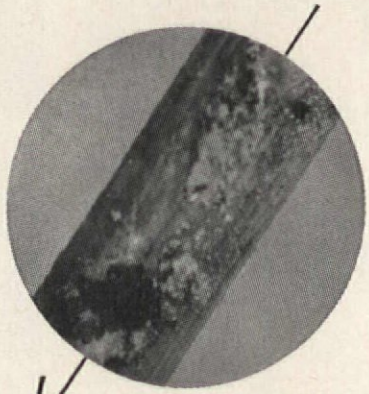
WHEN YOU SPECIFY COOLING TOWERS

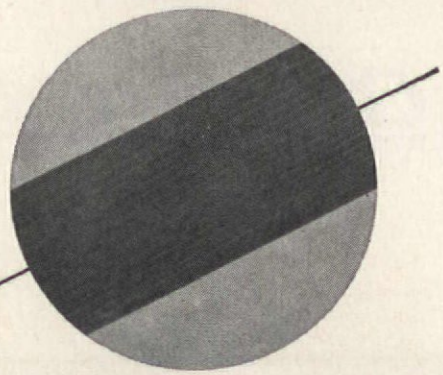
.....SPECIFY *20-Year Guarantee!



FUNGUS-RIDDEN ROTTED DECKING

CLEAN PRESSURE-CREOSOTED DECKING





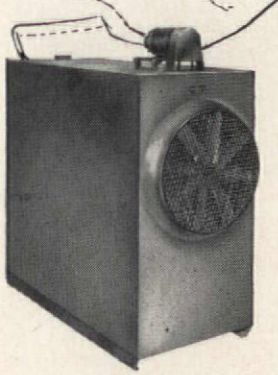
Unretouched photographs

*ONLY HALSTEAD & MITCHELL PROTECTS AGAINST ROTTING by FUNGUS ATTACK

KOPPERS PRESSURE-CREOSOTED WETTED DECKS . . .

proven by years of service in Halstead & Mitchell commercial and residential Cooling Towers . . . add years and years of vital service life. Creosote is the most permanent and positive preservative for wood . . . contains 162 elements toxic to fungus growth and parasites which immediately attack the constantly wetted wood decks in a cooling tower. Pressure-Creosoting gives the deepest possible penetration . . . the longest possible life.

Because all wood in our Cooling Towers is Pressure-Creosoted, only Halstead & Mitchell can offer the 20-Year Guarantee on the wetted deck surface against rotting due to fungus attack!



2 thru 100 Tons

Built like a Battleship

Sheet-Steel Cabinets, 5-times protected

Stainless Steel Fans and Shafts

Weather Shielding

Everdur Bolts for ease of disassembly at any time.

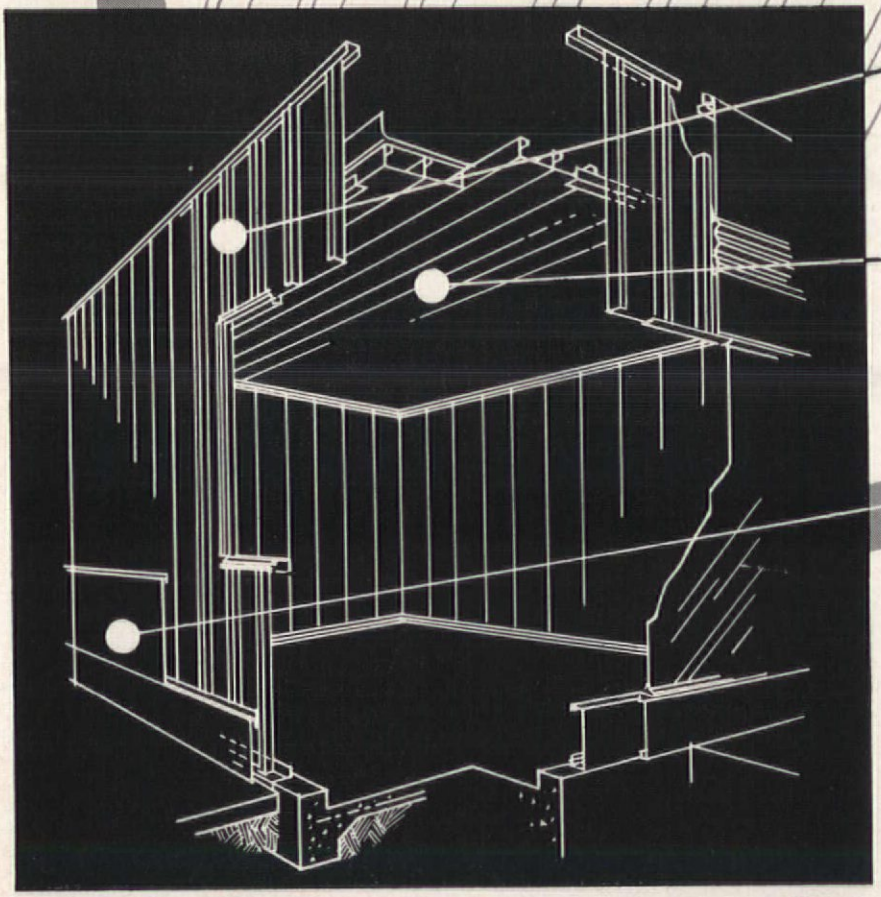
Write for Catalogs

HM Halstead & Mitchell

OFFICES: Bessemer Building, Pittsburgh 22, Pa.

Avoncraft

The Finest Architectural Porcelain Enamel Products Ever Offered



***FRAMELESS* LOAD-BEARING WALLS** provide inner finished walls, structural ribs and insulation space.

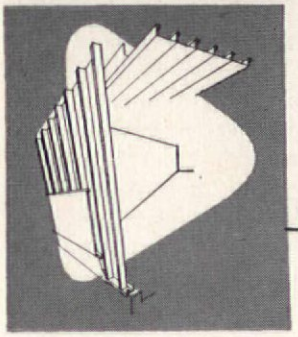
LOAD-SPAN DECKING provides high safety factor over long unsupported areas, smooth ceilings and insulated roof.

CURTAIN WALLS are engineered for flexibility of architectural design.

For developing *frameless* structures for such buildings as:

1. Service Stations
2. Motels
3. Schools
4. Single story commercial buildings
5. Freight and bus stations
6. Maintenance-free industrial buildings

Present your requirements to Avoncraft Engineers.



architectural products

Avoncraft

A Division of Avondale Marine Ways, Inc.

P. O. Box 1030 - New Orleans 8, U. S. A.

WASHINGTON (*Cont. from p. 296*)

the heading of welfare services, it is promoting the use of existing structures such as schools, armories, Army barracks and other institutional-type buildings where reception centers might be established to care for those who would be forced to abandon cities temporarily.

This planning was required when the Federal government switched its policy on civil defense from one of protective shelter within cities to near total evacuation.

FCDA also is counting on the probability that much housing in any given area could safely be reoccupied a short time following an attack. That's one reason the emphasis is on provision of temporary shelter elsewhere, rather than on new construction of more permanent housing.

ADDENDA

• President Eisenhower signed the bill authorizing establishment of a new Air Force academy comparable to the present service schools at Annapolis and West Point. The new law carries authorization for expenditure of $126 million, $26 million of it to be spent for "preliminary work" such as getting classes underway temporarily in substitute quarters. A five-man commission was appointed by Air Secretary Talbott to recommend possible sites for locating the permanent establishment. He must abide by the commission's selection if it turns out to be an unanimous agreement on one site; otherwise, he chooses from one of three locations it names.

• W. E. "Bert" Reynolds, widely known to the construction industry for his work with the Public Buildings Service, plans to retire as PBS Commissioner about June 30. He has been in the Federal Service for 21 years and at the age of 66 is considered a top authority in the public buildings field.

• Private U. S. engineering, contracting and consulting firms operating abroad received almost a quarter of a billion dollars for their services in 1952, the Commerce Department's Office of Business Economics reported. Service receipts of $99 million for 1952 reflected a gain of more than one fourth over the $77 million received in the previous year, and exceeded 1950's figure of $66.5 million by nearly 50 per cent, OBE said.

• Quotes from a House Appropriations Committee report on the Interior Department, with special reference to he Bureau of Reclamation: "The general practice of the Bureau to overdesign structures and facilities has been observed on some of the projects by the committee members and has been reported by competent engineers. The committee is also aware of the tendency on the part of some architects and engineers to sacrifice practical considerations and taxpayers' dollars by requiring specially manufactured equipment and nonstandard fabrication where standard items could be used. It is urged that the Commissioner interest himself in this particular problem in an effort to achieve economies in the program wherever possible. It should not be necessary for the committee or the Congress to have to direct attention to such items as this."

(*More news on page 308*)

WHY A NECA QUALIFIED ELECTRICAL CONTRACTOR?

THE SEAL THAT SYMBOLIZES ELECTRICAL SATISFACTION
NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION INC.
QUALIFIED ELECTRICAL CONTRACTORS
NECA

There are good reasons for an architect or engineer to look for the seal identifying a member of the National Electrical Contractors Association. Here are just four of these reasons:

1 **A WRITTEN GUARANTEE,** covering parts and workmanship.

2 **PRACTICAL INTERPRETATION** of your plans to insure the end-result performance you specify.

3 **COMPETENT SUPERVISION,** on the job, by men who know electrical products, practices, standards, and codes.

4 **SKILLED MANPOWER,** an adequate pool of craftsmen, trained from apprenticeship up, for any size job.

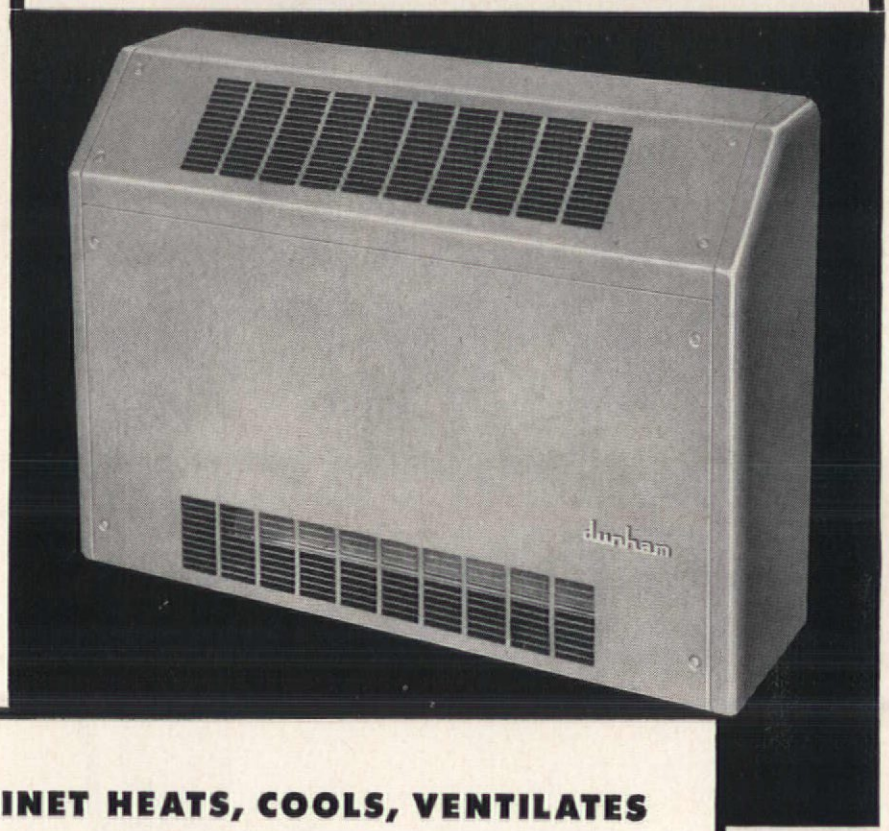
And there are more good reasons why you will find it profitable to discuss your next job with your Qualified Electrical Contractor. You'll find his name under the NECA Seal in your Classified Telephone Directory.

"Set for silent operation"

"Easy to mount on floor, wall or ceiling"

"Uses hot and cold running water"

HERE'S THE NEW ALL-WEATHER VARI-TEMP



NEW DUNHAM CABINET HEATS, COOLS, VENTILATES TO SUIT INDIVIDUAL ROOM REQUIREMENTS

New Dunham "Vari-Temp" Cabinets now put year 'round air conditioned comfort within reach of every budget . . . and within easy reach of every room occupant. For "Vari-Temp," with twin blower fans, heats, cools, ventilates, filters and dehumidifies *on an individual room basis.*

Since there's no need for central system duct work, Dunham "Vari-Temp" costs less to install and maintain. A single riser, connected to the unit, supplies hot water for heating—chilled water for cooling. Units are also available for heating with steam coil, or heating and ventilating with non-freeze steam coil.

In addition, these handsome, compact cabinets save space. *One "Vari-Temp"* delivers the same amount of heat as *five radiators* equal to it in size!

For further information about space-saving, money-saving, room-controlled Dunham "Vari-Temp" Cabinets . . . clip and mail the coupon.

DUNHAM VARI-TEMP CABINETS

RADIATION • UNIT HEATERS • PUMPS • SPECIALTIES

QUALITY FIRST FOR FIFTY-ONE YEARS

C. A. DUNHAM COMPANY • CHICAGO • TORONTO • LONDON

C. A. DUNHAM COMPANY
Dept. AR-5, 400 W. Madison Street
Chicago 6, Illinois

Please send your "Vari-Temp" Literature.

Name_____

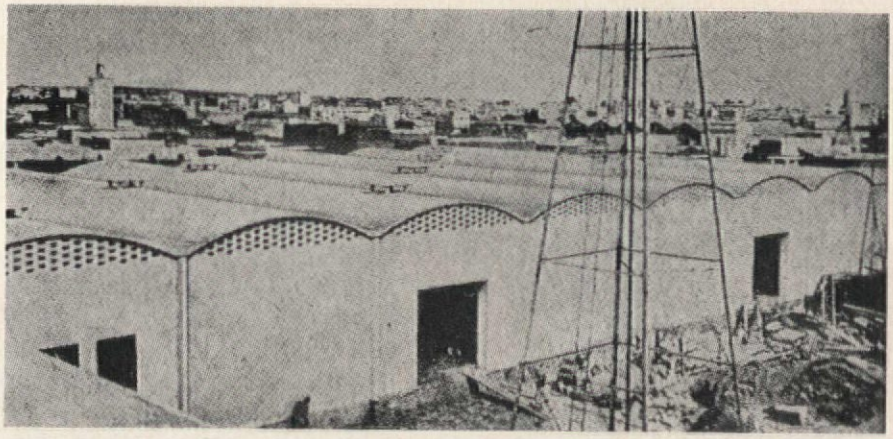
Company_____

Address_____

City_____ Zone____ State_____

Perret

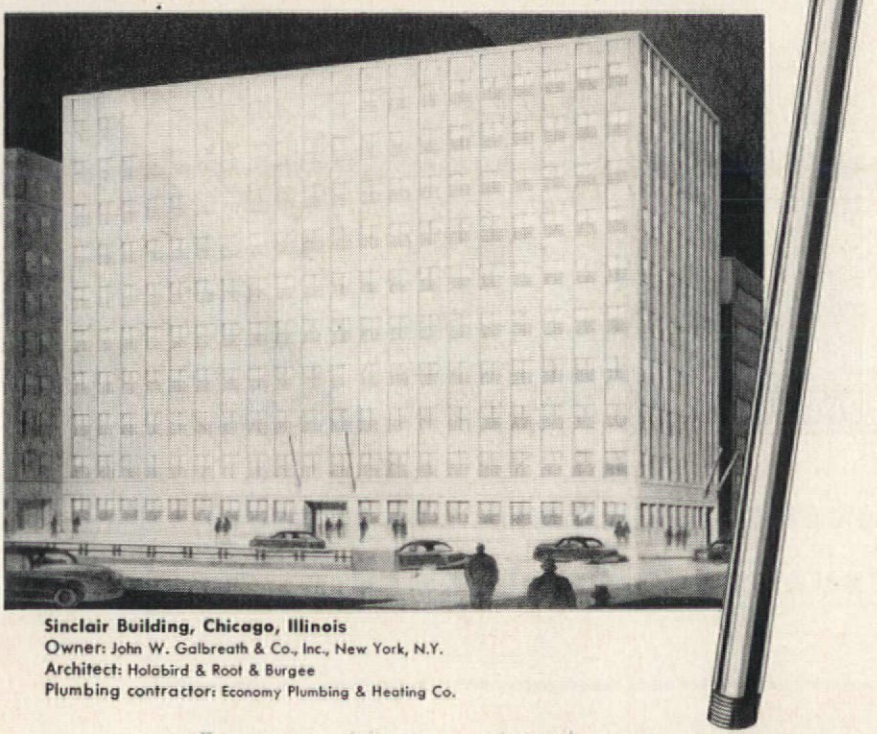
(Continued from page 11)



1915 — Docks, Casablanca
"It is by the repetition of an element that one creates rhythm"

Once again...and for the life of the building...it's Clow "IPS"*

...the pipe that never needs to be replaced!



Sinclair Building, Chicago, Illinois
Owner: John W. Galbreath & Co., Inc., New York, N.Y.
Architect: Holabird & Root & Burgee
Plumbing contractor: Economy Plumbing & Heating Co.

Famous architects consistently specify Clow "IPS"* (threaded) Cast Iron Pipe

With the world-famous architects of the handsome new Sinclair Building it is standard practice to specify Clow "IPS" (threaded) Cast Iron Pipe for all downspouts, vents, and waste lines three inches and larger. Over four thousand feet of Clow "IPS" pipe have been installed in the Sinclair Building and once installed, it's there for *good*. Because of the corrosion-proof characteristics of cast iron, there'll be *no* replacement, and no upkeep cost. Installation is fast, economical . . . and permanent.

*Iron Pipe Size O. D.

Clow "IPS" (threaded) Cast Iron Pipe has same O.D. as steel pipe, is available with plain or threaded ends, in 3, 4, 5, 6, 8, and 10" sizes in 18' random lengths. Also available with integral calking hub on one end (other end plain) in 18' random lengths in 4, 6, and 8" sizes.

Clow Cast Iron Pipe can be...

on the job, with ordinary tools of the piping trade.

JAMES B. CLOW & SONS

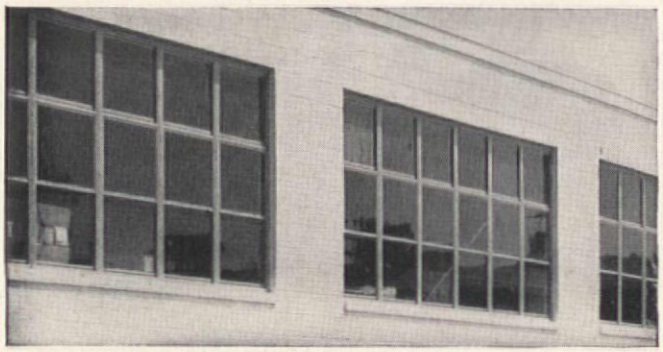
201-299 North Talman Avenue • Chicago 80, Illinois

WHOLESALERS OF PLUMBING AND HEATING SUPPLIES
Publishers of the Clow Bulletin

1929 — Auditorium, School of Music, Paris
"Perret promised me a violin; he did not say it would be a Stradivarius" — Alfred Cortot, Director

1929 — Perret's Studios, Paris
"The art of architecture is not in materials; it is in the arrangement of materials"

These **RUSCO** Products Offer Unique Advantages For Efficient Remodeling and Modernization

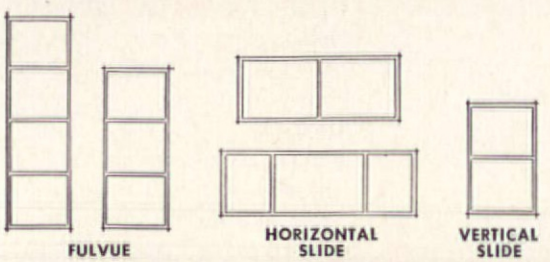


For Window Modernization—or Simplified Replacement

RUSCO *Hot-Dipped Galvanized Steel* PRIME WINDOWS

Fully Pre-Fabricated, Ready-to-Install Units

These windows offer exceptional characteristics of design flexibility, weather tightness and economy. Precision-manufactured in complete form—glazed, finish-painted with baked-on enamel, fully weatherstripped, complete with casing. Installation is extremely simple and fast. Units easily joined in series with streamlined non-load-bearing mullions. Available with insulating sash and Fiberglas screen, if desired.



Available in wide range of styles and sizes.

before

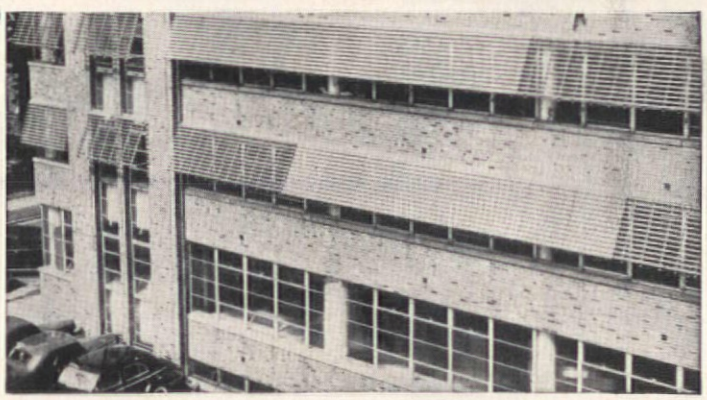
after

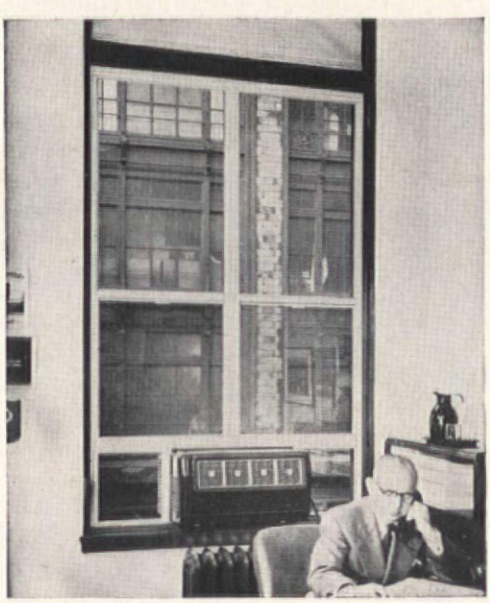
Photos show how Rusco Prime Window units with insulating sash were used to replace old, worn wood windows in Hollenden Hotel, Cleveland, Ohio. Complete replacement effected in *hours*—room back in service same day!

For Attractive, Efficient, Controlled Window Shading

RUSCO *Adjustable* VENETIAN AWNINGS

A permanent treatment that gives truly effective control of shade, light and ventilation. Louvers are adjustable from inside with gear operator. You will find Rusco Venetian Awnings an ideal answer to the proper shade treatment so necessary to efficient air conditioning installations. Allow continuous air flow, insulate against heat and dispel it. Available in Bonderized, galvanized steel or alodized aluminum—finish-painted with baked-on enamel.





For Practical, Workable Window Unit Air Conditioning

RUSCO Air Condition WINDOW

The first window unit designed to accommodate any type of window air conditioner. Completely replaces conventional window. All glass panels, including flankers, are removable from inside for washing, eliminating window cleaning problems. An extra lower glass panel replaces air conditioner unit and flankers when unit is removed for storage or servicing.

RUSCO *Hot-Dipped Galvanized Steel* **PRIME WINDOWS**

For illustrated literature and specifications, write

THE F. C. RUSSELL COMPANY, DEPT. 7-AR54

Cleveland 1, Ohio • In Canada: Toronto 13, Ontario

THE RECORD REPORTS

(*Continued from page 306*)

ON THE CALENDAR

May

2–7 36th Annual Meeting, Scientific Apparatus Makers Association — Broadmoor, Colorado Springs, Colo.

3–4 Spring meeting, National Building Material Distributors Association — Hotel Statler, Washington, D. C.

3–5 Annual Meeting, Air Pollution Control Association — Patten Hotel, Chattanooga, Tenn.

3–7 Semi-Annual Convention, Society of Motion Picture and Television Engineers — Washington, D. C.

3–14 British Industries Fair — Olympia and Earls Court, London, and Castle Bromwich, Birmingham, England

4 Annual meeting, members and Board of Directors, Steel Joist Institute — The Boca Raton Club, Boca Raton, Fla.

5–7 Eighth National Meeting, Forest Products Research Society, and 1954 Woodworkers' Industry Show — Grand Rapids, Mich.

5–7 Second Welding and Allied Industry Exposition — Memorial Auditorium, Buffalo, N. Y.

5–16 1954 Annual Exhibition, Philadelphia Chapter, American Institute of Architects — Philadelphia Art Alliance, 251 S. 18th St., Philadelphia

7–8 Annual convention, Pennsylvania Society of Professional Engineers — Bedford Springs Hotel, Bedford, Pa. Information: L. F. Tierney, 301 Pine St., Hollidaysburg, Pa.

7–8 1954 Convention, Michigan Engineering Society — Jackson, Mich.

10–13 39th Annual Conference, Building Officials Conference of America — Bellevue Stratford Hotel, Philadelphia

10–14 Annual Assembly, Royal Architectural Institute of Canada — Montreal

16–20 Annual convention, Special Libraries Association — Netherland Plaza Hotel, Cincinnati

17–20 Second Basic Materials Exposition — International Amphitheatre, Chicago

18–21 American Planning and Civic Association Conference — Columbus, Ohio

24–27 35th International Conference and 1954 Office Machinery and Equipment Exposition — Kiel Auditorium, St. Louis

24ff New Work in Stained Glass; American Federation of Arts traveling exhibition; through June 14 — Chattanooga Art Association, Chattanooga, Tenn.

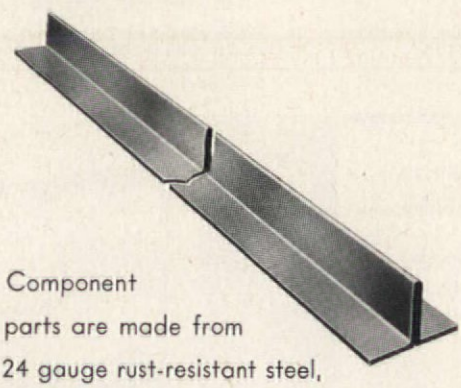
26–29 1954 British Architects Conference — Torquay, England. Information: C. D. Spragg, Secretary, Royal Institute of British Architects, 66 Portland Place, London W. 1, England

27ff Building Your Home, 1954: exhibition of building design, materials and products; sponsored by Architectural League of New York; through June 6 — 71st Reg. Armory, 34th St. and Park Ave., New York City

(*Continued on page 310*)

the

..Quality mechanical suspension system for the installation of acoustical units is Securitee.



..Component parts are made from 24 gauge rust-resistant steel, with patented pressure flange and ample width for a true and rigid installation

..Information contained in our new folders will be invaluable to you as an architect or designer . . .

Fill out the coupon and mail it today.

*T.M. Reg. U.S. Pat. Off.

Securitee SYSTEMS

W. J. HAERTEL & CO.
832 W. Eastman St.
Chicago 22, Ill.
West Coast Distr.
FREY & HAERTEL
125 Barneveld Ave.
San Francisco, Calif.

Please send me complete technical data on your Securitee Systems.

Name_____

Company_____

Street_____

City_____ State_____

Lowest cost cooling

for any size house

List prices start at $139.95

- EASILY INSTALLED
- GUARANTEED 5 YEARS
- OPERATES FOR A FEW CENTS A DAY

New automatic ceiling shutter
Opens or closes automatically at the flip of a switch, or with automatic timer. Finished to blend with all room colors.

Hunter Attic Fan cools the entire house

The Hunter Attic Fan is the most practical and least expensive method of keeping a home comfortable on hot nights. It pulls cool, refreshing breezes through every room in the house . . . drawing out hot, stagnant air. This compact unit is easily installed in any new or old home. It requires only 18" attic clearance—ideal for low-pitched roofs. Fan comes complete with ceiling shutter and trim—no extras to buy or build. Sizes from 5000 to 15500 CFM (air deliveries certified) fit any home size and climate.

This new, improved attic fan has the same smooth, quiet operation and dependable performance that have made Hunter Fans famous for 67 years. Fan unit guaranteed 5 years; motor and shutter, 1 year.

Hunter SINCE 1886

Write for new 1954 Hunter Catalog

HUNTER FAN AND VENTILATING COMPANY
396 S. Front St., Memphis 2, Tenn.

HUNTER Attic Fans

SEE OUR CATALOG IN SWEET'S

THE RECORD REPORTS

(*Continued from page 308*)

31ff Canadian International Trade Fair; through June 11 — Exhibition Park, Toronto, Canada

June

Japanese House: an exhibition of a house designed and built in Japan by Junzo Yoshimura — Sculpture Garden, Museum of Modern Art, 11 W. 53rd St., New York City

7–8 23rd Annual Meeting, National Housing Conference — Hotel Statler, Washington, D. C.

7–10 Sixth National Plastics Exposition, sponsored by the Society of the Plastics Industry, Inc. — Cleveland Auditorium, Cleveland

10–12 Joint annual convention, New Jersey Chapter, American Institute of Architects and New Jersey Society of Architects — Berkeley-Carteret Hotel, Asbury Park, N. J.

13–18 Annual Meeting, American Society for Testing Materials — Sherman and Morrison Hotels, Chicago

14–18 62nd Annual Meeting, American Society for Engineering Education — University of Illinois, Champaign-Urbana, Ill.

15–19 86th Annual Convention, The American Institute of Architects — Hotel Statler, Boston

15–25 Special summer program in soil technology — Massachusetts Institute of Technology, Cambridge 39, Mass.

19–20 Pre-Conference Library Buildings Institute, sponsored by American Library Association — St. Paul

20 Good Design Anniversary Exhibition, sponsored by the Museum of Modern Art and the Merchandise Mart, opens in Chicago; to be on view throughout the year — The Merchandise Mart, Chicago

21–23 Thin Concrete Shells, a conference jointly sponsored by the Departments of Civil Engineering and Architecture — Massachusetts Institute of Technology, Cambridge 39, Mass.

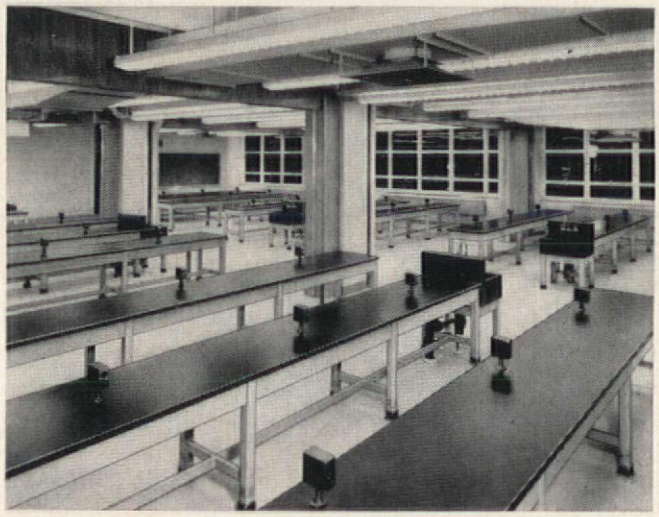
21–25 Summer and Pacific General Meeting, American Institute of Electrical Engineers — Hotel Biltmore, Los Angeles

24–30 23rd Annual Conference, American Institute of Decorators, and exhibition "Decoration 1954" — Palmer House, Chicago

27ff 92nd Annual Meeting, National Education Association; through July 2 — New York City

30ff Playground Sculpture Competition: exhibition of prize-winning designs in a competition sponsored by Parents Magazine, the Museum of Modern Art and Creative Playthings Inc.; through Aug. 22 — Museum of Modern Art, 11 W. 53rd St., New York

AN EXPERT *at your* ELBOW



Student Pathology Laboratory, Wayne Medical School, Detroit, Mich.

Saves you time, money and mistakes, yet costs you nothing

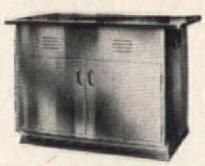
There are two things you will always remember about the installation of Kewaunee Laboratory Equipment for your clients.

First—the expert assistance you receive from the experienced Kewaunee Laboratory Engineer right at the start of the job without any cost or obligation. He brings right to your elbow such a storehouse of practical experience gained on work done for America's finest laboratories. He knows how to save money, too—how to lay out your client's laboratory to permit most economical future expansion. It's important to have him on the job early, as some of the important savings he will help you make may be outside the laboratory itself.

The second thing you will remember is the painstaking way the Kewaunee people follow through on the job. That goes for the quality construction of every piece at the factory, and the expert installation to give day after day efficiency and convenience.

Take your choice of these Free Kewaunee Services

1. Write for the Free Kewaunee Laboratory Equipment Catalogs for schools. Specify whether you are interested in wood or metal.
2. Send us your client's laboratory floor plans and any other helpful information. Our staff of Laboratory Engineers will prepare a complete layout without cost to you. And if you will tell us when you would like to talk with the Kewaunee Laboratory Engineer, he will soon be "at your elbow" without cost or obligation.



Kewaunee End Sink No. 217

Kewaunee Mfg. Co.

J. A. Campbell, *President*

Sales Representatives in Principal Cities

5046 S. Center St. • Adrian, Mich.

OFFIC NOTES

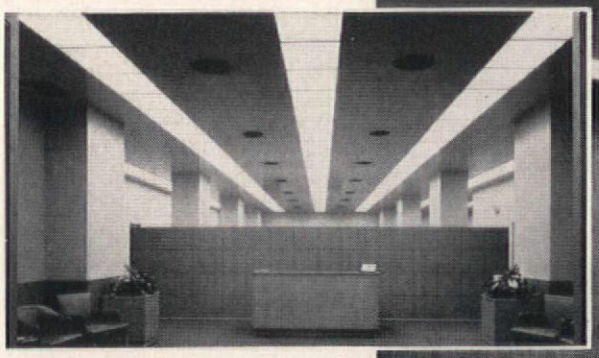
Offices Opened

• Charlie G. Taylor, Architect and Engineer, and Harry J. Devlin have opened offices for the practice of architecture and engineering at 213 O'Michael Building, 300 N. Jackson, Odessa, Tex.

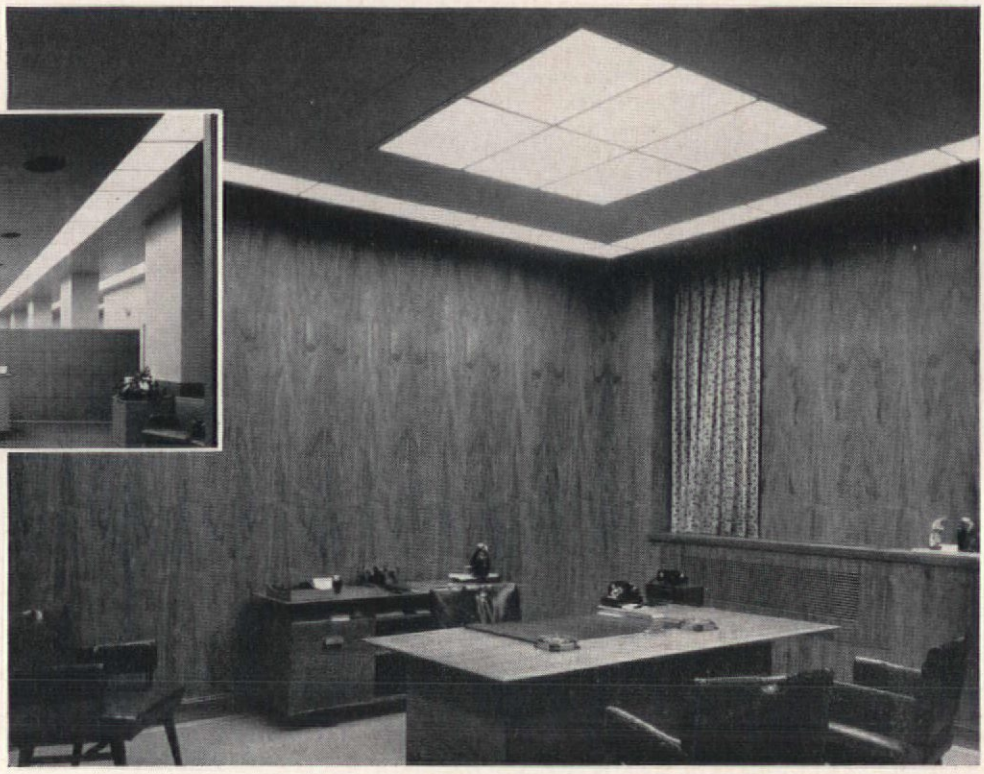
• Woodburn & O'Neil, Architects and Engineers, have announced the opening of offices at 215 Jewett Building, Des

(*Continued on page 312*)

Architects—Holabird & Root & Burgee
Lighting Fixtures—Morris Kurtzon, Inc.
Electrical Contractors—Kelso-Burnett Electric Co., Inc.
Lightingware—Corning Fota-Lite



Visitors are greeted in a pleasant, well-lighted reception area. Workers in the area beyond the smart panel find that Fota-Lite illumination is glare and shadow free.



A perimeter of Fota-Lite brightens this executive office, while a concentrated area over the desk provides excellent illumination for reading and writing. Fota-Lite is perfect for luxury lighting.

How modern offices can use Corning Fota-Lite to advantage

The rich setting of these new offices of a large oil company show how CORNING Fota-Lite is used best. Notice how evenly it distributes light.

Fota-Lite is richly rewarding to work with. It gives you all of the lighting advantages of louvered lighting *plus* the advantages of flat glass—easy cleaning.

Fota-Lite provides high levels of illumination with low brightness. The soft opal louvers afford diffusion at normal viewing angles. Vertical light, however, is unrestricted.

Fota-Lite is not color selective. You can use it freely for wonderful effects where colors form a mood or where color encourages a buying decision.

What is Fota-Lite?

It's fine crystal glass in which tiny opal louvers are created by a photographic process. Strong, lightweight, free of warpage, Fota-Lite encloses light sources with a minimum of bulk. You can use it for an entire luminous ceiling or for keying interest to relatively small areas. Fota-Lite offers rare value when it comes to beautiful lighting and lighting that is efficient. And the smooth glass surface permits easier cleaning.

You can get complete information about Fota-Lite and other Corning products just by signing and mailing the request slip below. We'll send you a free copy of Architects and Engineering Handbook of Lighting Glassware.

CORNING GLASS WORKS
CORNING, N. Y.

Corning means research in Glass

CORNING GLASS WORKS, Dept. AR-5, Corning, N. Y.

Please send me a copy of the "Architects and Engineers Handbook of Lighting Glassware."

Name.....Title.....

Company.....

Address.....

City.....Zone.....State.....

THE RECORD REPORTS

(*Continued from page 310*)

Moines, Iowa. Members of the firm are Chester C. Woodburn, Eugene C. O'Neil, and William M. Woodburn; Chester C. Woodburn was formerly a partner in the firm of Dougher, Rich & Woodburn.

Firm Changes

• Taylor and Fisher, Architects, have announced the admission to partnership of Warren Austin Bowersock. The firm's offices are in Baltimore.

New Addresses

R. J. Brocker, Architect and Engineer, 401 S. Maple Ave., Greensburg, Pa.

Katz Waisman Blumenkranz Stein Weber, Architects Associated, 551 Fifth Ave., New York 17, N. Y.

Maynard Lyndon, F.A.I.A., 3460 Wilshire Blvd., Los Angeles 5, Calif.

Slater & Chait, Architects, 244 E. 32nd St., New York 16, N. Y.

modern

in design... with

modern

air conditioning equipment

by

Marlo

Air Conditioning and Heating Contractor: Standard Engineering Co., Washington, D. C.

Architects and General Contractors: Bank Building and Equipment Co., St. Louis
W. G. Knoebel, Chief Architect

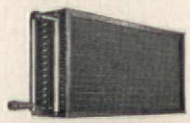
Consulting Engineers: Ferris and Homig, St. Louis

Consulting Architect: Robert O. Scholz, Washington, D. C.

Every detail of this handsome structure in Washington, D. C., was planned to achieve the utmost in beauty, efficiency and luxurious comfort. It is the new home of the Perpetual Building Association.

Year-round air conditioning is an important feature of the progressive merchandising techniques which have made this 73-year-old company the leader in its field. Marlo Spray Type Dehumidifiers, Marlo Steam Coils and Marlo Water Coils perform a vital service in the winter-summer comfort-conditioning system serving this modern building.

In the complete line of quality Marlo equipment, you'll find the answer to any air conditioning problem. Marlo will be glad to give you complete details. Write today.



Marlo Direct Expansion and Water Cooling Non-Freeze Coils

Marlo Spray Type Dehumidifiers

See our bulletin in Sweet's Catalog

Marlo COIL COMPANY

Manufacturers of COOLING TOWERS • EVAPORATIVE CONDENSERS • INDUSTRIAL COOLERS • AIR CONDITIONING UNITS • MULTI-ZONE UNITS • BLAST HEATING & COOLING COILS

Saint Louis 10, Missouri

PUBLIC RELATIONS NOTES

THE BALTIMORE CHAPTER of the American Institute of Architects doubles, collectively, as columnist. The column, called the "Architect's Corner," is published weekly in the *Baltimore Sunday American* in the paper's real estate section. Articles are written by various members of the chapter.

WEST VIRGINIA STATE MAGAZINE recently devoted an entire issue to the state's architecture. The issue contained several articles on architecture, some of them written by the architects themselves, and featured several pages of illustrations of current West Virginia architecture. The editors plan to make this the first time for an annual project.

THE KANSAS CITY CHAPTER of the A.I.A. has acquired a weekly ten minutes of television time, which the Kansas City station, WHB-TV, offered free as a public service. The chapter considered a film program, but finally decided in favor of a discussion-type presentation. The program will run for 13 weeks.

ANOTHER TELEVISION VENTURE which boosted architects and architecture was WOR-TV's program broadcast from New York, "Design for Your Living." A series of four half-hour programs had Thomas Creighton, editor of *Progressive Architecture*, as master of ceremonies; three architects were guests each week to discuss such diverse subjects as house design, school design, and furnishings.

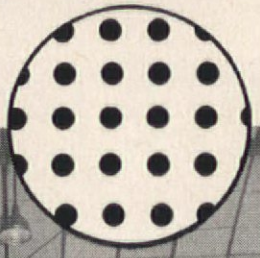
PUBLIC RELATIONS in the form of substantial civic service is being offered by the Chicago Chapter of the A.I.A. Members of the chapter have volunteered to investigate possible sites for a Chicago city center — thus taking some of the burden from the overworked staff of the Chicago Plan Commission.

FULL PUBLIC CREDIT was given to Washington architects John Hans Graham and Associates for their design for the Arthur Murray Dance Studios in that city. Mr. Graham was even invited to appear with Mrs. Murray on a number of television programs marking the studio's grand opening — notable since the architect is too often the forgotten man at such ceremonies.

(*More news on page 314*)

No Wonder More and More Specifications Call For HANSOTONE*

the PERFORATED ACOUSTICAL FORMBOARD for POURED GYPSUM ROOF DECKS

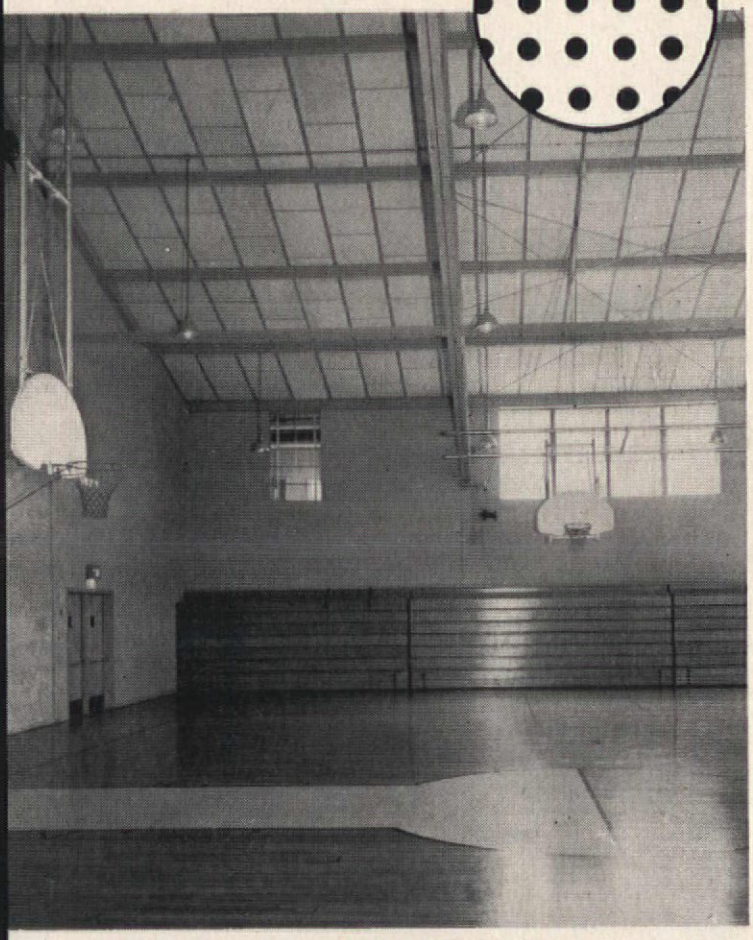


LOWER MATERIAL COST

LOWEST INSTALLATION COST

Here's an extra strong wood fiber board developed exclusively for use with poured-in-place gypsum roof decks. It's the only perforated Acoustical Formboard with a 32" span . . . which means lower material costs . . . and lower installation costs. HANSOTONE combines high thermal insulation with outstanding sound absorbing qualities to provide a permanent, rigid, and attractive base for the gypsum concrete.

- Thickness—1"
- Size—32 x 48"
- Light Reflection — .76
- Sound Absorption—.60 NRC
- K Factor — .35
- Protected against termites and mildew



RUSSELL HIGH SCHOOL
ATLANTA, GEORGIA

Architect — Bodin & Lamberson
Gen. Contractor — Hardin & Traver
Hansotone Contractor—Lewis & Co. Assoc., Inc.

HANSOTONE*
In Georgia board is known as LEWISOUND

Send For Literature

ELOF HANSSON, INC.

220 EAST 42nd STREET NEW YORK 17, N. Y.

For complete information contact your local HANSOTONE contractor:

ATLANTA, GA.
Lewis & Co. Associates, Inc.
ALEXANDRIA, VA.
Anning-Johnson Co., Inc.
BUFFALO, N. Y.
Martin Fireproofing Corp.
CHICAGO, ILL.
Anning-Johnson Co., Inc.
CLEVELAND, OHIO
Anning-Johnson Co., Inc.
DENVER, COLO.
Anning-Johnson Co., Inc.
DALLAS, TEXAS
Macatee, Inc.
DES MOINES, IOWA
Anning-Johnson Co., Inc.
DETROIT, MICH.
Gypsum Contractors, Inc.
HOUSTON, TEXAS
Macatee, Inc.
INDIANAPOLIS, IND.
Brown-Anning-Johnson, Inc.
LOS ANGELES, CALIF.
Anning-Johnson Co., Inc.
LANSDOWNE, PENN.
J. B. Eurell Company
MIAMI, FLA.
Anning-Johnson Co., Inc.
MINNEAPOLIS, MINN.
Anning-Johnson Co., Inc.
NEW ORLEANS, LA.
Anning-Johnson Co., Inc.
NEW YORK, N. Y.
Keystone Fireproofing Co.
RALEIGH, N. C.
E. B. Johnson Company

Other ELOF-HANSSON Products:

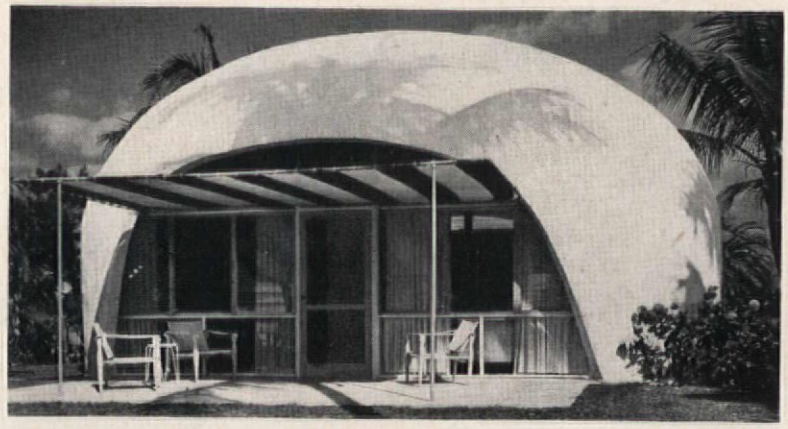
*Hansonite Acoustical Tile
*Hansotone Metal Acoustical System
Reynolds Aluminum Acoustical System

*Reg. U.S. Pat. Off.

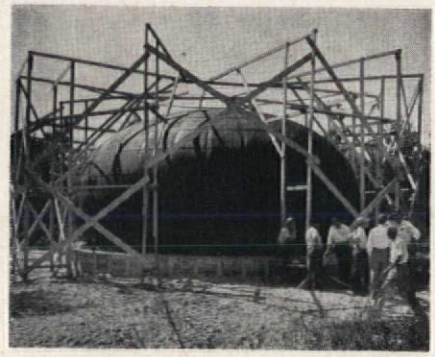
(*Continued from page 312*)

CONCRETE BUBBLE HOUSES COMPLETED IN FLORIDA

One solution to the problem of constructing houses quickly and cheaply has been put forward at Hobe Sound, Fla., where two concrete "bubble houses" designed by architect Eliot Noyes have been completed.



Above: one of the finished bubble houses, ready for occupancy. Below: the inflated balloon, prior to being wrapped in wire mesh and reinforcing rods; scaffold is used by men working the hose



The houses are about 30 ft in diameter, giving an area of about 600 sq ft. The roof measures about 14 ft at the center.

According to the architect, the entire building can be built and finished in 18–20 days; five days are required for construction of the foundation and the concrete shell.

The contractor's estimate for the cost of complete foundation, slab and shell is $5.35 per sq ft, and it is hoped that a finished house can be produced for about

(*Continued on page 316*)

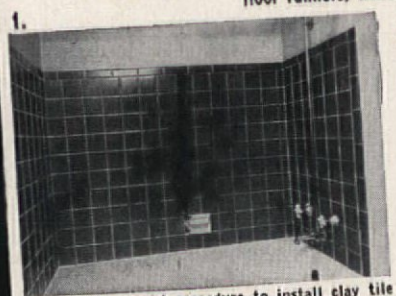
Earlier form of the bubble house, designed by Wallace Neff and built at Litchfield Park, Ariz.

FACTS FOR ARCHITECTS
ABOUT "CONSTRUCTION BY ADHESION"*

HERE ARE NEW METHODS WHICH MEAN SUBSTANTIAL SAVINGS IN LABOR AND MATERIALS FOR MODERN CONSTRUCTION in both *NEW* building and *MODERNIZATION*

MIRACLE ADHESIVES CORP.
214 E. 53 St. • New York 22, N. Y.
"CONSTRUCTION BY ADHESION"
*Reg. U.S. Pat. Off.

WRITE TODAY FOR RECOMMENDED SPECIFICATIONS ON
1. Setting Genuine Clay Tile. 2. Insulating Ducts. 3. Insulating walls and ceilings either by Direct Adhesion or in conjunction with Surface Anchors. 4. Installing floor runners; bonding furring strips.

1.

Today it is normal procedure to install clay tile in hotel bathrooms without losing a night's revenue. This illustration shows one of the 144 rooms in the White Plaza Hotel, Dallas, Texas, in which MIRACLE ADHESIVE was used to do the job from the time the guest left his room in the morning until he returned that afternoon.

2.

Plaster applied over wire and cork which has been attached to aluminum ducts using MIRACLE ADHESIVE and MIRACLE SPINDLE ANCHORS at John Hancock Mutual Life Insurance Co. Building, Boston, Mass. ARCHITECT, Cram and Ferguson. BUILDER, Turner Construction Co.

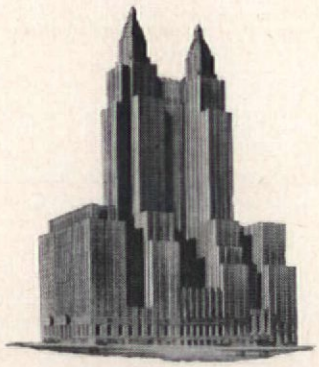
3.

FIBERGLAS insulation, Type PF-613, 2" thick — bonded to concrete ceiling using MIRACLE PRONGED ANCHORS at Radio City Studio 6B, New York, N. Y. CONTRACTOR, William J. Scully, Inc., New York, N. Y.

4.

WOOD RUNNERS installed on concrete floors with MIRACLE ADHESIVE and MIRACLE ANCHOR NAILS to support 2" solid partitions, Washington Circle Apartments, Washington, D.C. GENERAL CONTRACTOR, Charles H. Tompkins Company.

VISIT MIRACLE EXHIBIT AT ARCHITECTS SAMPLES CORP. 101 PARK AVE., NEW YORK CITY
Distributed Coast to Coast and in Canada



Why did the Waldorf choose TYPHOON coils to triple its cooling power?

Tom Barrett gives his Typhoon installation an approving once-over.

Tom Barrett, Building Superintendent of the Waldorf-Astoria, found himself with a whale of a problem.

Seems that when the original air conditioning system was installed in the Grand Ballroom, over 15 years ago, they didn't reckon with full capacity crowds or the hot blasts of TV lights.

Now, the capacity of the air handling equipment had to be tripled in order to cool the ballroom adequately.

This called for the installation of banks of chilled water cooling coils with new blower systems. To complicate matters, larger quantities of outside air brought in for ventilation purposes required new banks of pre-heating and heating coils.

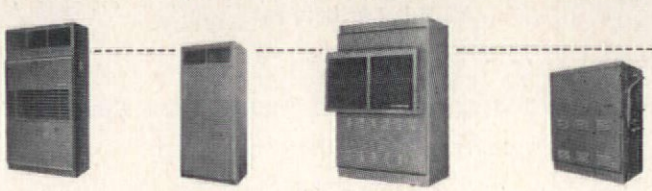
The consulting engineers, Seelye, Stevenson, Value & Knecht, looked about for a firm that could supply custom-built coils meeting the rigid standards of quality prescribed by this world-famous hotel. After exhaustive checking of qualifications and past performance records, one firm stood out – Typhoon.

Banks of cooling and heating coils were tailor-made by Typhoon for the job. Many were 8 rows in depth and 10 feet in length – copper tubes with helically bonded fins for maximum heat transfer, especially designed to fit into extremely limited space. And Typhoon made delivery in record time.

Now it's really a Grand Ballroom–summer and winter–with enough dependable cooling to accommodate the full capacity of 3000. Tom Barrett is satisfied that the rugged equipment standards of the Waldorf have been met–and then some. "Those Typhoon 8-row coils really wring out the moisture," he says happily.

And so another great name is added to the long list of famous Typhoon customers.

Whether the job calls for a single packaged air conditioning unit or a custom-built central plant–you can count on Typhoon. Quality engineering, backed by over 40 years of experience, is your guarantee of trouble-free performance.



Packaged Air Conditioning
Units in 2-3-5-7½-10-15-20-25 horsepower sizes

Packaged Water Chillers
10 and 20 horsepower

TYPHOON
AIR CONDITIONING

Write for detailed information

TYPHOON AIR CONDITIONING CO., INC.

794 Union Street, Brooklyn 15, N. Y.

Specialists in Air Conditioning Since 1909

 (*Continued from page 314*)

$6000. Since the houses were built on an experimental basis, these figures might differ if the buildings were mass-produced.

Mr. Noyes' design uses a structural system invented by architect Wallace Neff some 13 years ago. An example of Mr. Neff's design was published in ARCHITECTURAL RECORD, July 1944, pp 81–83, and is shown on previous page.

The first step in construction is the pouring of a round concrete foundation; the reinforcing bars of this foundation are allowed to project and are bent into hooks. A steel cable is then run through these hooks and a balloon, made of neoprene and nylon, is attached to the cable.

An ordinary blower is used to inflate the balloon to a pressure of four and one-half oz. Precautions are taken to insure a constant pressure.

The lower part of the balloon is then wrapped in wire mesh which extends to a height of about seven ft and is reinforced by three-eighths in. steel rods. The top of the balloon is covered with chicken wire.

After this the balloon is covered with concrete which is sprayed on. The shell is about two in. thick at the bottom and about one and three-fourths in. thick at the top. This operation requires about a day's time.

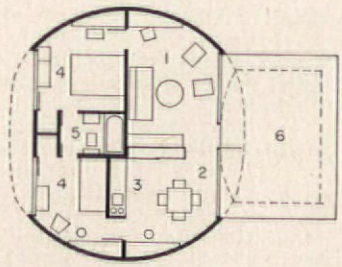
The wide openings on either side of the bubble are indicated by a template laid across the balloon, showing the workman the boundaries of the area to be sprayed.

The concrete takes about 24 hours to dry, after which time the balloon is deflated and removed. The shell is sprayed with a vapor seal and covered with an insulating blanket of glass fiber.

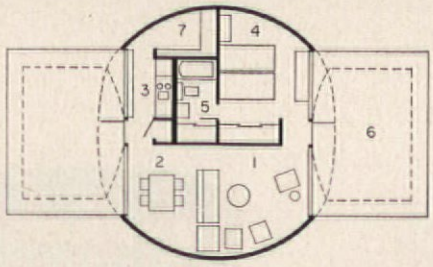
The concrete shell is covered with mesh and reinforcement, and a second coat of concrete is applied. The shell is finished inside and out by hand and by flash coating from a spray gun.

The absence of load bearing partitions permits free planning of the interior of the bubble. No ceilings are used except over the bathroom, which is covered with corrugated sheets of plastic glass.

Bubble houses are being developed in two larger sizes — one will provide 1000 sq ft of living space, the other 1600 sq ft.

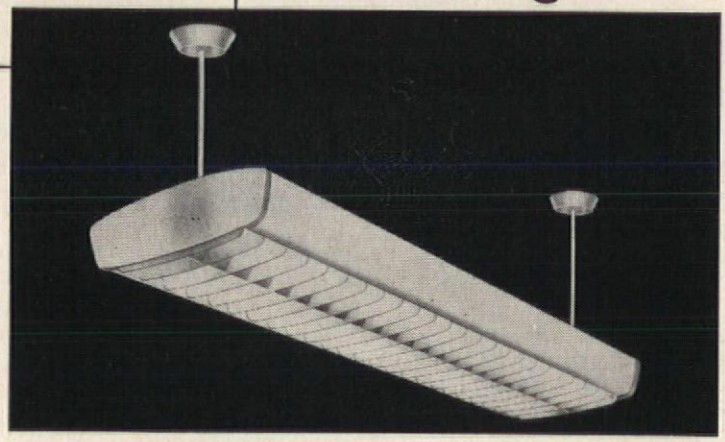


Space arrangements in Hobe Sound houses, keyed as follows: (1) living room; (2) dining room; (3) kitchen; (4) bedroom; (5) bath; and (6) terrace



(*More news on page 324*)

SEEING is Believing



The Arthur

A & B 14000 SERIES

4 & 8 FOOT FLUORESCENT LUMINAIRES

Using standard or slimline lamps

A VERSATILE DIRECT-INDIRECT LUMINAIRE FOR INDIVIDUAL OR END-TO-END PENDANT MOUNTING

The 2-lamp Arthur, with its direct-indirect component is designed specifically for pendant mounting. Sloping ends, plus trim, shallow lines and all white finish give the unit a particularly light and graceful appearance.

Diffusing polystyrene side panels and 35° x 35° louver shielding result in an eye-comforting brightness pattern. When lighted, the Arthur blends harmoniously into the ceiling.

Open chassis construction makes the unit easy to install; all metal parts are die formed; 8-foot units require hangers only on the ends. Side panels slip into position; hinged louver opens or removes quickly. Unit is wired complete, ready to install, less lamps.

WRITE FOR BULLETIN NA *It details complete specifications and engineering data for the Arthur.*

PITTSBURGH REFLECTOR COMPANY

402 OLIVER BUILDING, PITTSBURGH 22, PA.

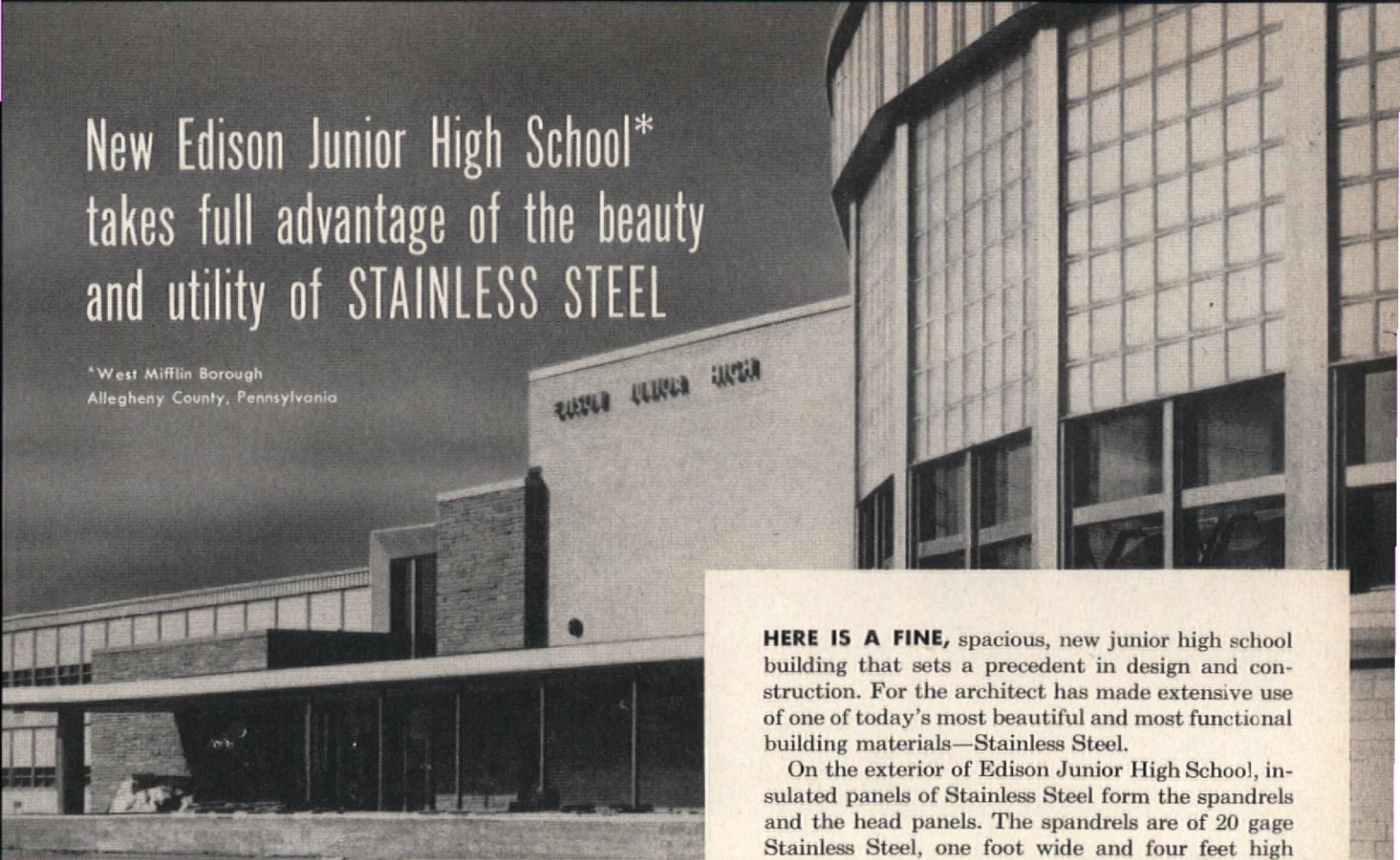
FLUORESCENT "Pittsburgh" Permaflector INCANDESCENT

Lighting

REPRESENTATIVES IN PRINCIPAL CITIES • WHOLESALERS EVERYWHERE

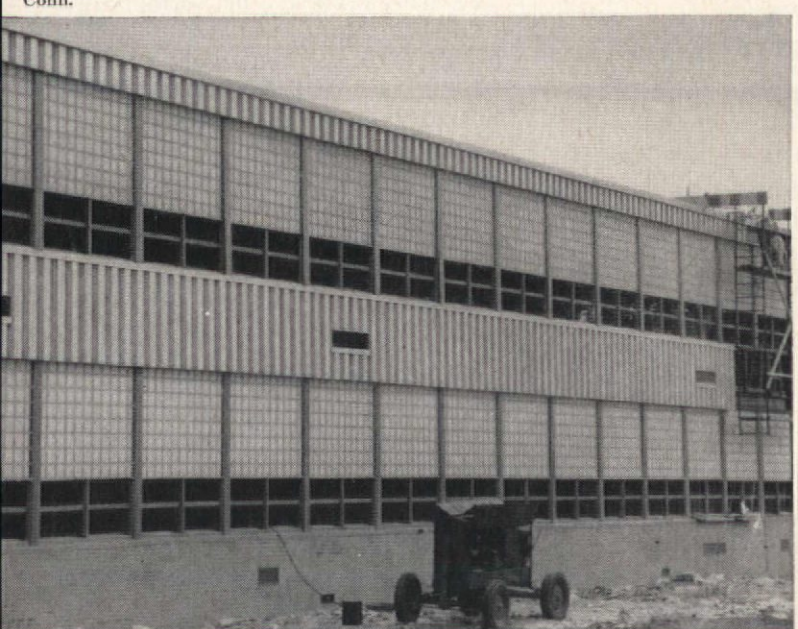
New Edison Junior High School* takes full advantage of the beauty and utility of STAINLESS STEEL

*West Mifflin Borough
Allegheny County, Pennsylvania



Edison Junior High School has 18 rooms with a two-story main classroom section 60 feet by 210 feet. A 200-foot by 120-foot wing houses a 600-seat auditorium, a cafeteria, kitchen, shops and gymnasium.

Architects: Button and McLean, Pittsburgh, Pa. General contractor: Nicholas LeDonne, Clairton, Pa. Stainless Steel panels fabricated and erected by R. C. Mahon Company, Detroit, Mich. Stainless Steel windows by Wilke Metal Products Company, Schofield, Wis. Stainless Steel sills, doors and inside trim fabricated by Trio Industries, Inc., Bridgeport, Conn.



HERE IS A FINE, spacious, new junior high school building that sets a precedent in design and construction. For the architect has made extensive use of one of today's most beautiful and most functional building materials—Stainless Steel.

On the exterior of Edison Junior High School, insulated panels of Stainless Steel form the spandrels and the head panels. The spandrels are of 20 gage Stainless Steel, one foot wide and four feet high with six-inch face square corrugation. The head panels are one foot high. Panels are insulated with one and one-half inches of Fiberglas and attached to the structural framework with clips.

The combination of Stainless with masonry and glass block makes an extremely attractive building. But the benefit of Stainless panel construction doesn't stop there. Construction with the panels was fast and went forward in all types of weather. More complete utilization of floor space was possible through this curtain-wall type construction. Maintenance on the Stainless Steel will be negligible and life will be long.

These panels are extremely efficient from a heating standpoint. They have a low rate of thermal transmission (or "U" factor).

Stainless Steel also was used in this school for sills, mullions, windows, door canopies and trim, blackboard and tackboard frames, doors and door frames, column covers and other interior trim.

If you have a new school in the planning stage, now is the time to think about Stainless Steel and its many benefits. And think in terms of USS Stainless Steel. For more information on Stainless Steel panel construction, mail the coupon below. If you like, we will have one of our representatives call.

United States Steel Corporation
Room 4353, 525 William Penn Place
Pittsburgh 30, Pa.

- ☐ Please send me literature on Stainless Steel panel construction.
- ☐ Please arrange to have fabricators of Stainless Steel wall panels send me literature on their particular type of construction.

Name..... Title.....

Address.....

City..... State.....

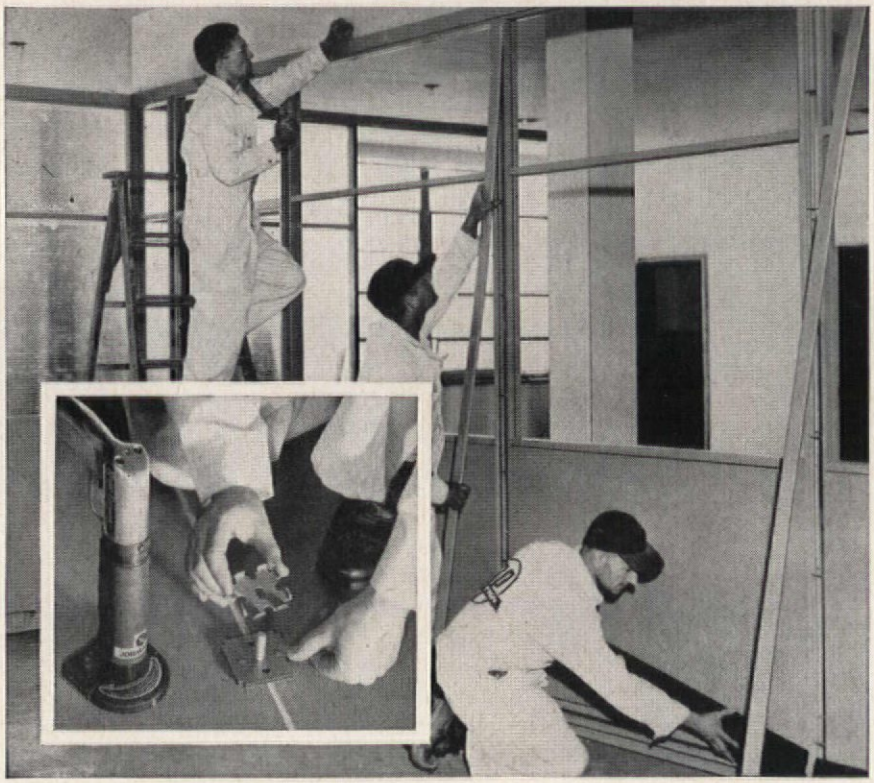
United States Steel produces only the Stainless Steel from which panels of this type are made; the panels themselves are fabricated by our customers.

UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO • NATIONAL TUBE DIVISION, PITTSBURGH
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS STAINLESS STEEL

HEETS • STRIP • PLATES • BARS • BILLETS PIPE • TUBES • WIRE • SPECIAL SECTIONS

UNITED STATES STEEL



"We reduce erection costs and install MOBILWALLS faster when we anchor with Ramset"

That's the experience of Virginia Metal Products, Inc., of Orange, Virginia, one of the leading producers of movable steel partitions. Frequently up against a tight time schedule, they find it far quicker and less costly to use RAMSET SYSTEM than conventional methods. Just set steel studs into concrete floors, walls and ceilings, with a split-second RAMSET JOBMASTER. Slip anchors over the studs, set the partition section into place and tighten with nuts. The job is done, in less than 1 minute per anchor. Erection is finished sooner so that space can be occupied, and cost savings are passed on to the owner.

These same advantages of RAMSET speed and economy can be gained for almost any work involving fastening into steel or concrete, for new buildings or modernization. Three RAMSET JOBMASTER tools are available for light, medium or heavy work, with 65 Tru-Set Fasteners in six different types to match the specific job requirements.

If you'd like to know more about how RAMSET saves time, money, and trouble, for fastening into steel or concrete, call your local dealer or ask for illustrated manual *Modern Fastening Methods*.

Ramset Fasteners, INC. Ramset Division Olin Industries, Inc.
12147 BEREA ROAD • CLEVELAND 11, OHIO

FIRST IN POWDER ACTUATED FASTENING

AN Olin PRODUCT

THE RECORD REPORTS

(*Continued from page 20*)

Dome Forming

Once the basic scheme for the formwork was figured out, reported Fuller's construction manager, Reino Laine, the job of erecting scaffolding and building the forms went very smoothly. After the special tubular scaffolding was up, beams and posts were set on top to carry the three-ply laminated timbers which ringed the dome from bottom to top. Then 2- by 4-in. stringers, extending from bottom to top of the dome, were nailed down. Finally, matched lumber was laid atop the stringers to receive the pour of concrete. Near the abutments, where the slope is steep, double forms with ports were used. Concrete was poured into them and vibrated. Above the double forms on the greater part of the dome a stiffer concrete was merely dumped on and vibrated.

Temperature of the concrete had to be carefully controlled for 72 hours during and after the pour. This was done by hanging tarpaulins from the three sides and keeping the inside warm with four space heaters turning out some three million Btu per hr. Forms were stripped in March, and then in April the tarpaulins were dropped since curing was done and they were no longer needed to protect workers from bad weather.

Roofing is now being applied which consists of layers of felt mopped with asphalt, glass fiber insulation, cinder concrete and finally lead-coated copper sheeting.

With the sides now open, it is easier to get an impression of the lightness of the dome. From the inside, it somehow suggests a huge concrete parachute that has only three corners.

Main Auditorium

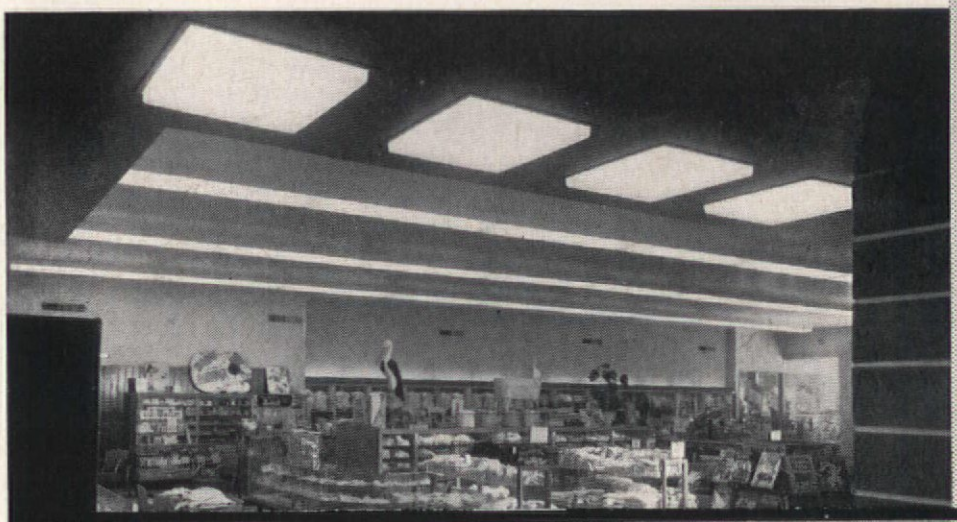
The audience in the main auditorium, which will seat 1200, will not see any of the glass walls, since the room is to be enclosed by walls of vertical wood siding which rise to the top of the dome, following its contour. At the juncture of walls and dome will be a cove for cold cathode lighting.

Since the domed ceiling itself is not intended to serve for sound distribution, steel framework is now being hung for saw-toothed-shaped acoustical baffles, dubbed "clouds." There are two "clouds," one floating over the audience, and the other over the podium with a

(*Continued on page 320*)

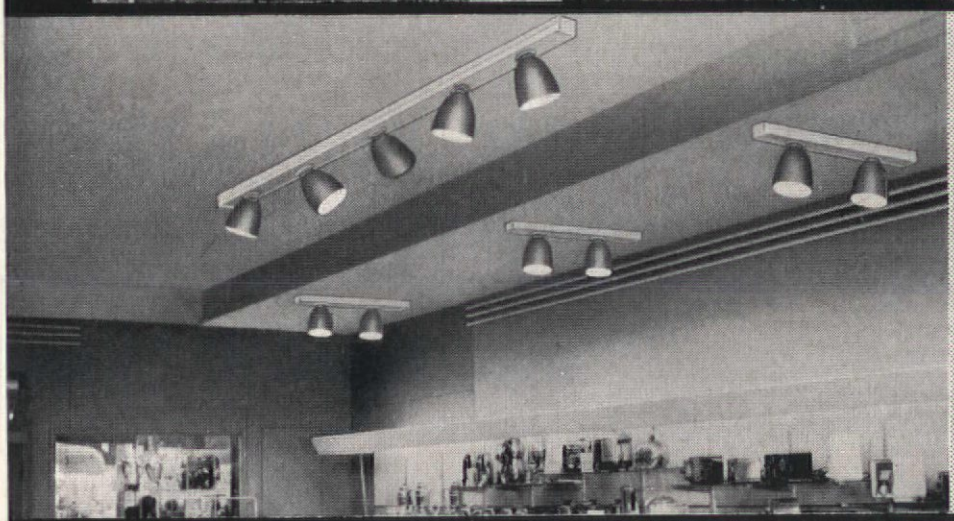
A Line So Complete . . . So Modern . . . So Functional . . . So Easy To Specify . . .

NEO-RAY LIGHTING FIXTURES



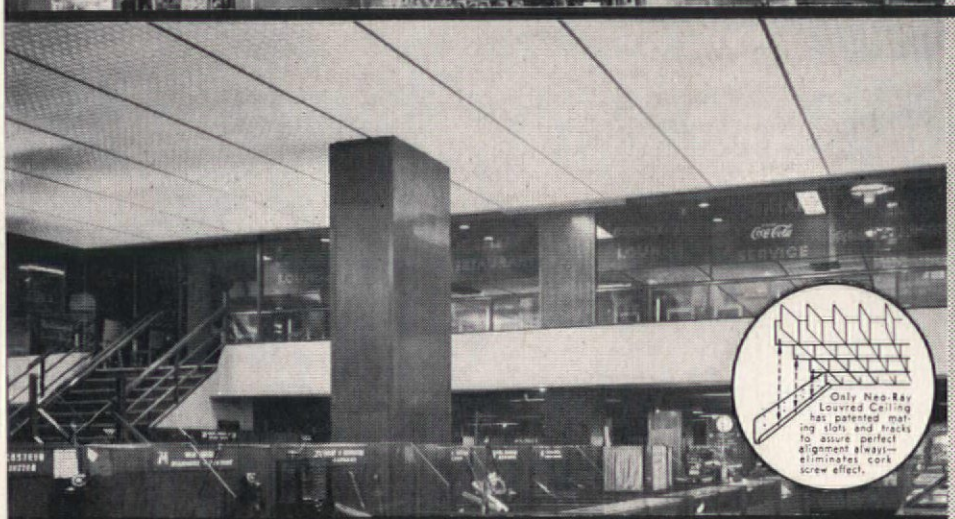
LUMINETTE

Fluorescent and Slimline, recessed and surface mounted fixtures —24", 48", 96", also 2' sq., 2' x 4' and 4' sq.—featuring the famous one-piece Neo-Rex acrylic plexiglass shield that will not discolor.



ROTO-STRIP

An entirely new concept in accent . . . display lighting. The first . . . the only . . . complete compact shallow unit with built in, recessed roto sockets. Finger tip adjustment . . . swings 90° in all directions through a complete 360° circle. Stays put at any angle. Unlimited uses: window lighting, floor displays, stage, etc. Ideal for anything requiring high-lighting.



LOUVRED CEILINGS

Wherever plans call for patterns or complete louvred ceilings.

Specify ML for removable sections, continuous unbroken pattern between parallel runners (tracks).

Specify CU for hinged sections, continuous unbroken louvre pattern in all directions.

NEO-RAY PRODUCTS, INC.

Manufacturers of Louvred Ceilings • Incandescent • Fluorescent • Slimline

315 EAST 22nd ST. • NEW YORK 10, N. Y.

Complete Catalogs on each line available. Please mention the one that interests you.

See our catalog in Sweet's Architectural File sec. 30a NE

 (*Continued from page 318*)

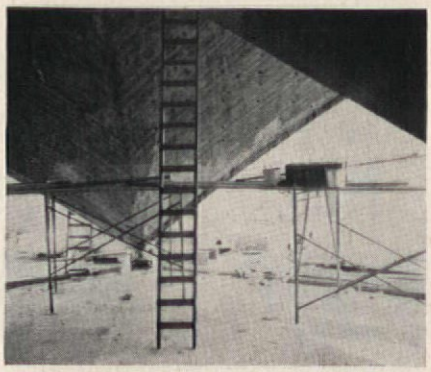
bit of "sky" between them. The "cloud" over the audience, besides operating acoustically, also holds lighting fixtures and long, thin diffusers for air conditioning. The baffle over the podium carries lighting as well as tracks for curtains. The back wall, for acoustic purposes, has wood slats backed up by a fabric screen and sound-asborbing insulation. Acoustical design was by Bolt, Beranek and Newman.

At the back of the main auditorium, near the top of the domed ceiling, is the projection booth. The acoustical baffle comes out from the top of the booth toward the front of the room.

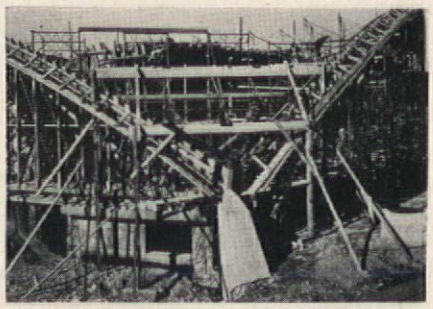
Small Auditorium

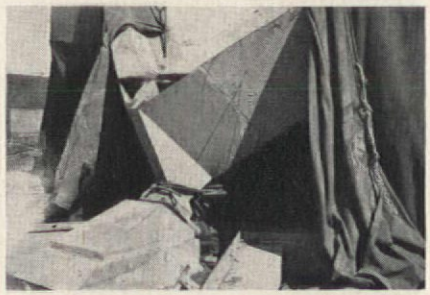
Under the main auditorium, is a smaller one which seats 200, with a Cyclorama screen. Since it was designed for use with scenery, it was necessary to provide for venting of smoke to meet fire regulations. Smoke can be drawn to the outside through two of the glass walls by means of special windows, pivoted at the bottom and held in place by fusible links. A good-size section of the glass walls is backpainted from bot-

(*Cnotinued on page 322*)



Above: looking at one of the supports from inside. Below: edge beam forms arching down to one of the abutments





Above: a closeup of the dome casting which rides on buttress casting like a ball and socket joint. Below: buttress casting, later to be concreted

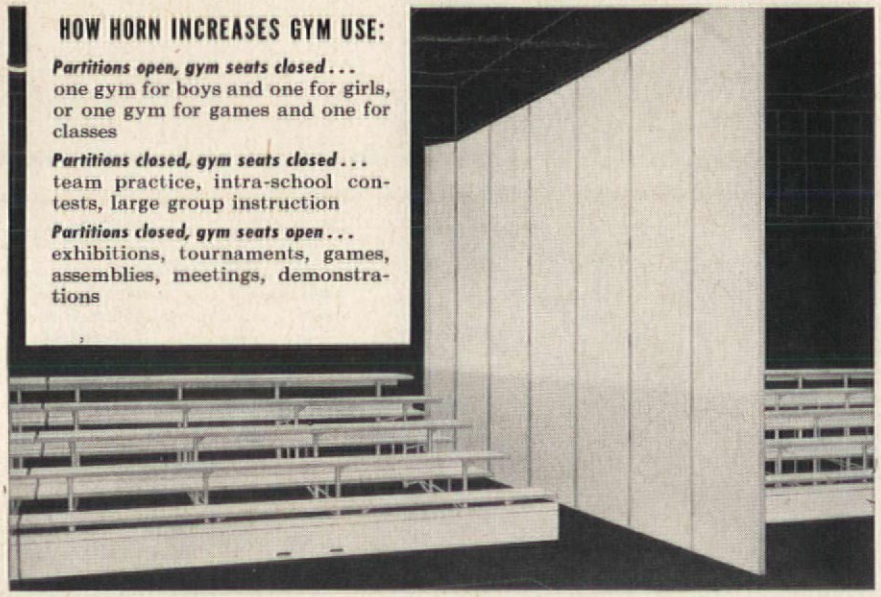
Horn Equipment... for multi-gym use with ease!

HOW HORN INCREASES GYM USE:

Partitions open, gym seats closed... one gym for boys and one for girls, or one gym for games and one for classes

Partitions closed, gym seats closed... team practice, intra-school contests, large group instruction

Partitions closed, gym seats open... exhibitions, tournaments, games, assemblies, meetings, demonstrations



Yes, now your every need for gym use can be met without back-breaking work. Just install Horn Folding Partitions and Gym Seats!

Electrically-operated Horn Partitions give you *two* gyms with a flick of the finger! In approximately two minutes, they unfold smoothly and silently, seal space between door and floor, lock securely in place without bolts. When the full gym is needed, they fold into compact, space-saving units . . . as easily as they are opened.

Spectators, even the tallest, cheer the ample leg-room and chair-height comfort of Horn Gym Seats. When folded, they use little valuable floor space and protect players with smooth, sloping surfaces.

Horn Gym Seats extend quietly in one continuous motion through the telescoping principle. And *each* row automatically locks as it opens. To close, seatboards rise to an upright position and practically fold all by themselves.

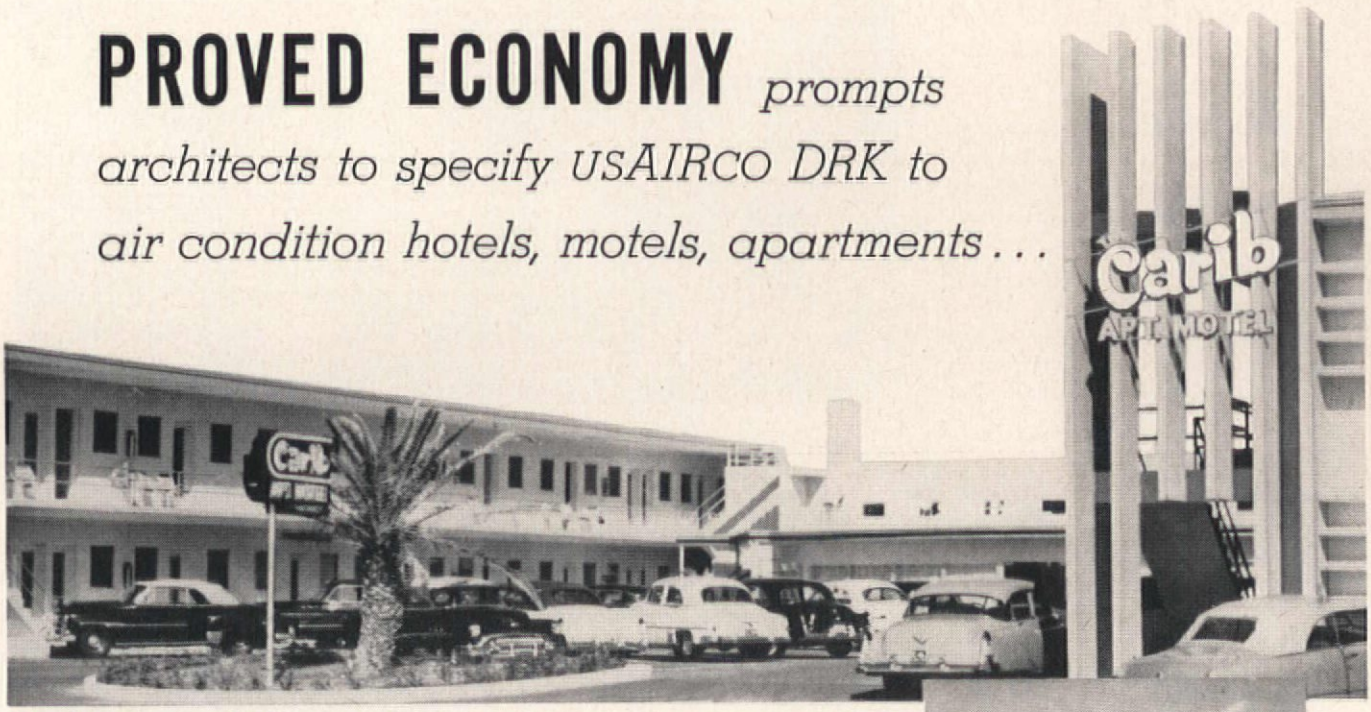
Horn maintains a design engineering service to help solve *your* problem in gymnasium flexibility. And Horn Equipment is custom-installed by factory-trained men. Why not write for the name of your nearest Horn representative?

Seen the big, new catalog on Horn Folding Classroom Wardrobes? Send for your free copy today!

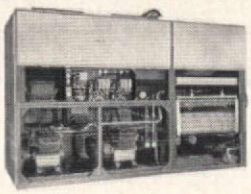
Horn

Horn School Equipment Division of
THE BRUNSWICK-BALKE-COLLENDER COMPANY
623 South Wabash Avenue • Chicago 5, Illinois

PROVED ECONOMY *prompts architects to specify USAIRCO DRK to air condition hotels, motels, apartments . . .*



CARIB MOTEL, *Sanford Kay Construction Co.*



Central Station Package Air Conditioner cuts installation costs . . . saves 95% in water consumption . . . solves load variations and limited starting current problems.

The USAIRCO DRK completely processes and conditions air within a single "packaged" unit. Air conditioner, compressor and evaporative condenser sections are combined in this one assembly, housing two complete refrigeration circuits.

By continually recirculating water, the DRK evaporative condenser saves 95% of water consumption costs. This compact central station unit requires a minimum of floor space. For example, dimensions of the 30 hp. DRK are: Length: 137½"; Height: 84⅛"; Depth: 53¼".

The USAIRCO DRK is wired with a two-stage thermostat, which automatically starts one or both compressors, depending on load requirements. When full load capacity is demanded, both compressors function. When load is reduced, only one compressor is automatically activated.

In areas with definite limitations on starting current, the USAIRCO DRK is the ideal application because starting current requirements are only ½ of normal, due to the automatic time delay relay.

Each DRK is custom fabricated, tested and balanced at the factory, delivered for immediate operation after three simple connections: to ducts, water supply and drain, and power supply. 8 sizes are available, from 10 to 60 hp. By adding a heating coil, the USAIRCO DRK becomes an efficient heating plant.

SANDY SHORES
Geo. Winston Construction Co.

TAHITI HOTEL
Sanford Kay Construction Co.

BOMBAY HOTEL
Hamilton Construction Co.

These are only 5 of the beautiful buildings designed by Miami Architect Norman M. Giller specifying USAIRCO *RK and DRK air conditioners. Installations are by Airko Air Conditioning Co., Miami Beach, Florida.*

CAROUSEL MOTEL
Sanford Kay Construction Co.

USAIRCO
30 YEARS OF AIR CONDITIONING

for further information on DRK's write Dep't R-54

UNITED STATES AIR CONDITIONING CORPORATION

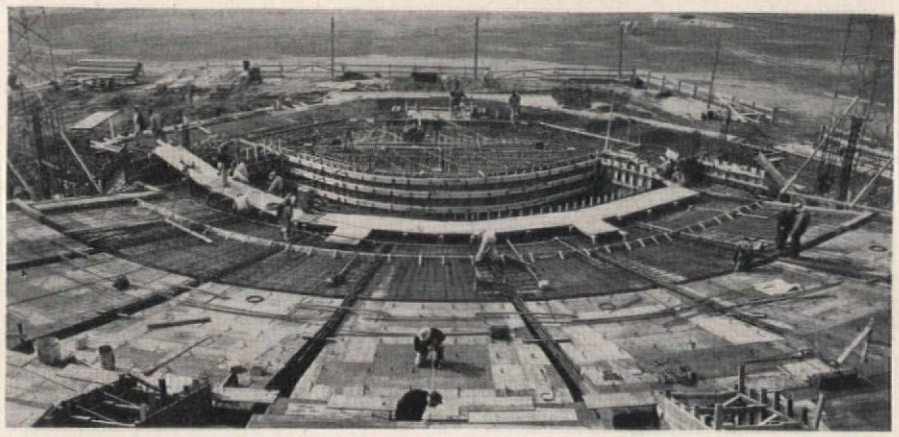
MINNEAPOLIS 14, MINNESOTA • *Export: 13 East 40th Street, New York 16, N. Y.*

(*Continued from page 320*)

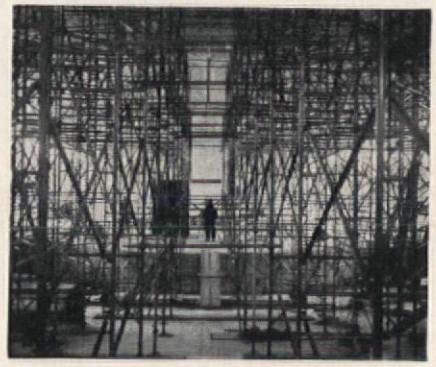
tom to top to conceal the venting system and equipment mezzanines located near the front of the auditorium. One mezzanine is for an organ loft, and the other is for electrical equipment.

Also on the lower level are musical instrument and choral rehearsal rooms, a green room, carpenter shop, dressing rooms, mechanical rooms, and the receiving room at the back. Between the receiving room and the back of the stage is an elevator.

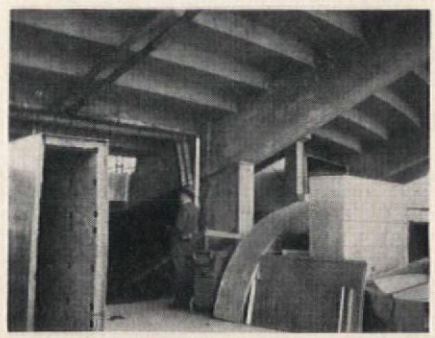
Much of the air conditioning equipment has been installed. The refrigeration room which extends out underground from the main structure has been equipped. Fans are now going into the mechanical rooms which are located under the main lobby on the outside edges of the lower floor. Air intake and exhaust is through horizontal gratings set at ground level. There are no boilers since heat is by steam from the M.I.T. central plant.



Above: forms have been laid for the main auditorium floor, orchestra pit and podium. Reinforcing is in place on lower portion of floor



Above: inside auditorium peering through scaffolding toward podium. Below: stepped level of auditorium floor cantilevers toward lobby on girders to be partly exposed



MICHAELS
BRONZE PLAQUES

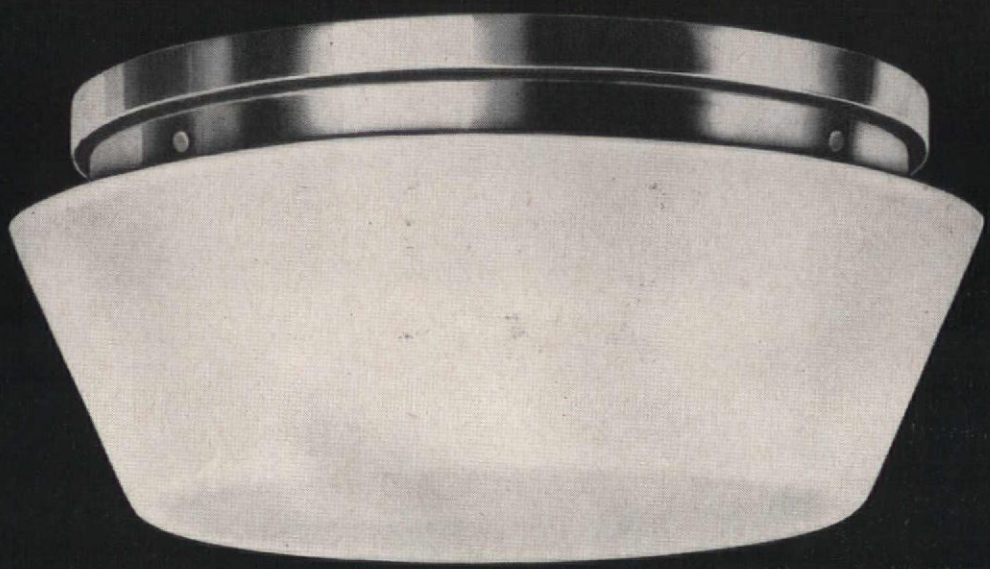
Any size, any shape, any design. Plaques for public buildings, lobbies, offices, parks and playgrounds, for memorials, name plates for desks, tellers' windows, and any other purpose. Michaels plaques are made of genuine bronze with lettering, borders and ornamentation hand chased and burnished for contrast. Tell us what you need, and we'll be glad to furnish sketches and quotations without cost or obligation. Write for illustrated literature.

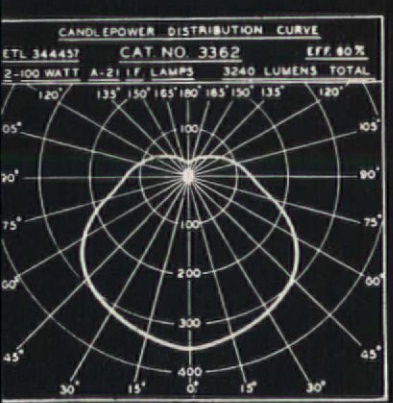
Michaels also manufactures a wide range of building materials in aluminum, bronze and stainless steel, Time-Tight display cases, and parking meters. Literature is available for these products.

MICHAELS PRODUCTS

Bank Screens and Partitions	Welded Bronze Doors
Elevator Doors	Store Fronts
Lettering	Check Desks (standing and wall)
Lamp Standards	Marquises
Tablets and Signs	Name Plates
Astragals (adjustable)	Stair Railings (cast and wrought)
Wrought and Cast Radiator Grilles	Grilles and Wickets
Kick and Push Plates	Push Bars
Cast Thresholds	Extruded Thresholds
MI-CO Parking Meters	Museum Trophy Cases

THE MICHAELS ART BRONZE COMPANY, INC.
234 SCOTT STREET, COVINGTON, KENTUCKY
Manufacturers since 1870 of many products in Bronze, Aluminum and other metals





INTEGRATED DESIGN, CONSTRUCTION and PERFORMANCE

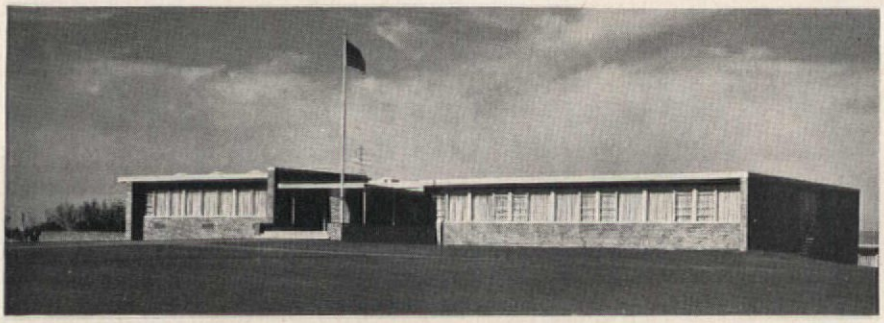
ART METAL has achieved, in this unit, a rare and original combination of incandescent lighting properties. It was designed for wide application, constructed for ease of installation, and provides exceptional efficiency coupled with visual comfort. Complete data on four sizes, 120, 150, 200 and 300 watts, is on page 47 of ART METAL catalog. We suggest you write for a copy.

THE **ART METAL** COMPANY

CLEVELAND 3, OHIO

Manufacturers of Engineered Incandescent Lighting

 (*Continued from page 316*)



NEW BUILDING REPLACES ONE-ROOM SCHOOLHOUSE

In place of an old one-room schoolhouse, Park Forest, Ill., now has a new $1\frac{1}{2}$ million high school. The building, designed by Loebl, Schlossman and Bennett, occupies a 55-acre site in the planned Chicago community. The school can accommodate 750–900 students, and can be expanded to handle as many as 1500.

Among facilities provided in the new school is a homemaking suite which includes a living-dining area in addition to the foods and clothing laboratories and an area for instruction in child care and home nursing. An arts and crafts studio is completely equipped for activity in ceramics, textiles, metal work, graphic arts. For drawing and painting classes, of course, a north light has been provided.

The central library is lighted naturally by transparent plastic bubbles set in the roof. Conference rooms and browsing space are included in the library area. In addition to the central facilities, there are rooms throughout the school for book collections in the sciences, business, arts and other departments.

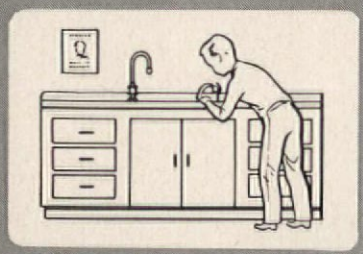
A communications laboratory is furnished with a glassed-in radio booth, a screened-listening room, a little theater stage, and complete sound and television equipment. Also provided in this lab are two additional stages for class work and special equipment for radio and television workshops.

Relaxation Part of Program

For the students' use during hours of recreation, an activities room is furnished with television, radio and a piano. Students can purchase soft drinks and ice cream at the snack bar. The room is also used for student meetings, and can be divided by a folding wall.

(*Continued on page 326*)

In School



CLASSROOM · LABORATORY · SHOP

HAWS "Deck Type" Drinking Fountains answer every demand

HAWS Model No. 2000 Series Pat. Applied for

Accommodating all schoolroom Drinking Fountain demands, the HAWS No. 2000 Series "Deck Type" Receptor mounts practically any combination of HAWS bubbler-type, pantry or fill-glass faucets—*with vandal-proof fittings.*

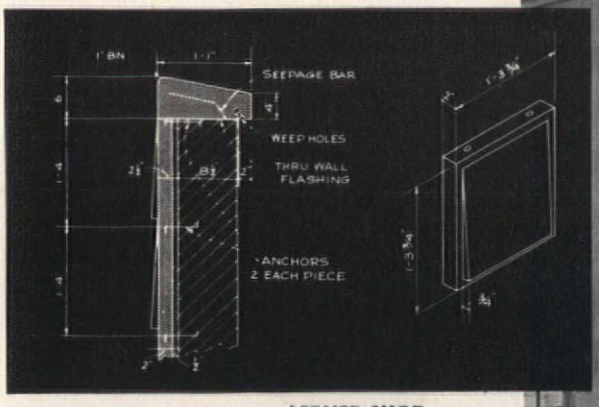
Finished in acid resisting white enamel, this utilitarian shaped, cast iron Receptor is all but indestructible. Also available in stainless steel.

A raised, sloped, stainless steel rim provides water-tight mounting and prevents water from running onto table or cabinet tops. Shown with two fixtures, Receptor is available with one . . . or a combination hot and cold water faucet.

Write today for completely illustrated brochure.

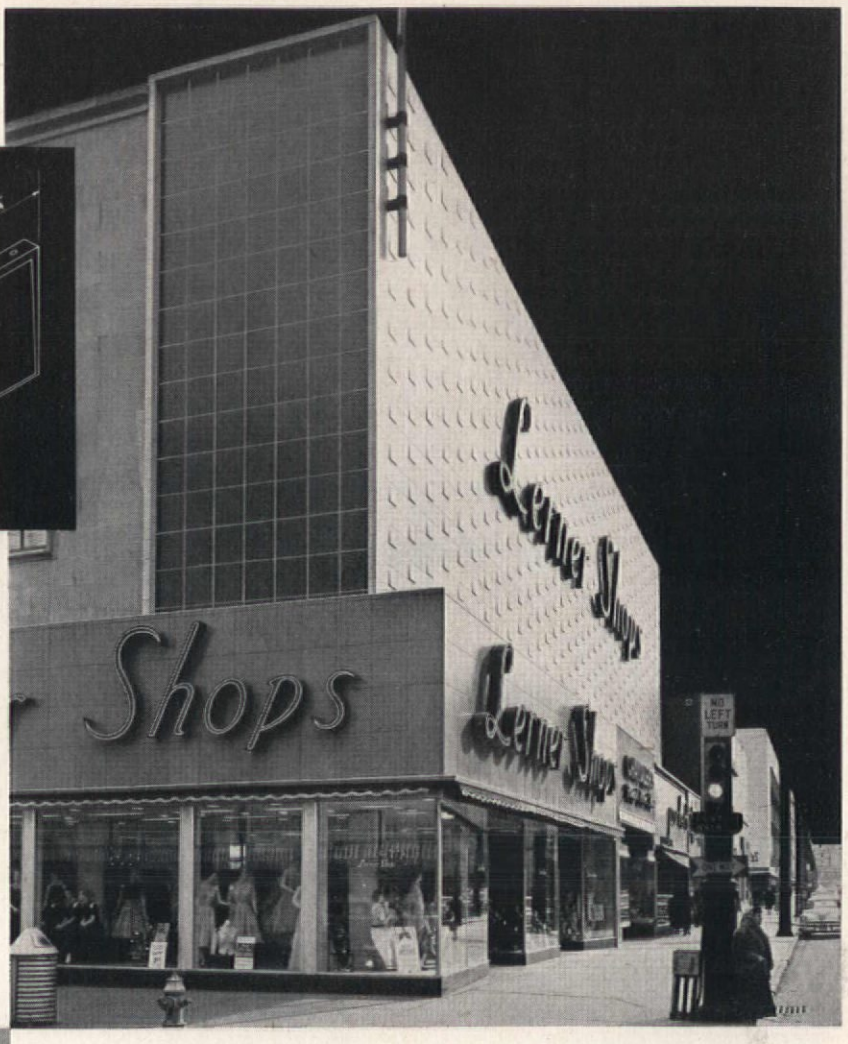
HAWS DRINKING FAUCET CO.

1443 FOURTH STREET (Since 1909) BERKELEY 10, CALIFORNIA



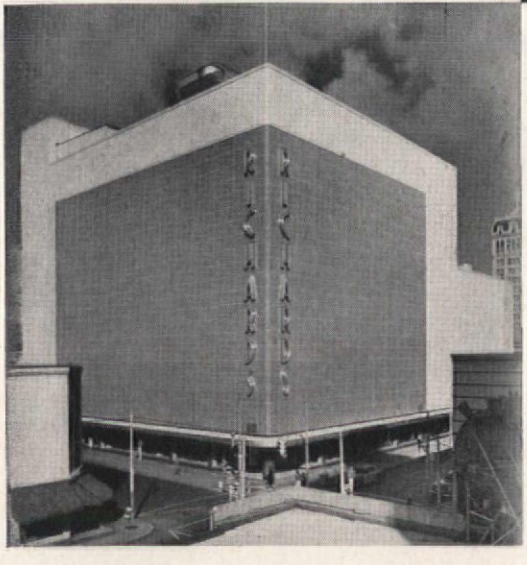
LERNER SHOP
DENVER, COLORADO
Edwin H. Cordes *Architect*
Associated Lerner Shops Inc. of Colorado *Builders*

Two-inch thick Architectural Terra Cotta units 16"x32", accented with 16" square shingles, make an imposing facade in light mottled gray. Sign space over the show windows is a contrasting green; corner vertical panel a rich harvest brown.



RICHARDS DEPARTMENT STORE
MIAMI, FLORIDA
Steward and Skinner *Architect*
Interstate Marble & Tile Co. *Contractors*

Architectural Terra Cotta units 24"x24", are grouped in sections of eight by wide mortar joint which gives effect of panels 8' wide by 4' high. Thickness of Architectural Terra Cotta is 2".



Design distinctive store fronts with Architectural Terra Cotta!

Color and character are easily designed into new or remodeled buildings with today's Architectural Terra Cotta. You can select any color under the sun . . . choose any texture imaginable . . . and design in large units or small, for interiors or exteriors. Architectural Terra Cotta is custom-made to your specifications—for plain surfaces or decorative sculpture. The initial cost is less than you'd expect . . . and maintenance consists only of simple soap-and-water washings. For latest facts, write to Federal Seaboard today.

Construction detail, data, color samples, advice on preliminary sketches, will be furnished promptly without charge on Architectural Terra Cotta and Ceramic Veneer. Send your inquiry today.

FEDERAL SEABOARD TERRA COTTA CORPORATION

10 East 40th Street, New York 16, N. Y.
PLANTS AT PERTH AMBOY AND SOUTH AMBOY, N. J.

F S T C

 (*Continued from page 324*)

This room, by the way, is operated and controlled by the students themselves.

Other special facilities include a music rehearsal room and broadcasting studio; individual practice rooms; laboratories for the sciences; laboratories for industrial arts; a business education department; club rooms; a reading clinic; a health clinic; and a book store.

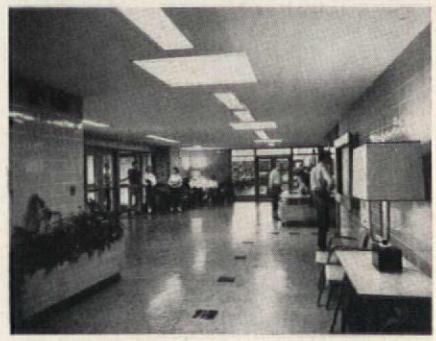
Ordinary classrooms are designed to emphasize individual instruction and participation. To achieve this effect, students' tables are arranged in a serpentine formation (see illustration).

The cafeteria and kitchen can serve 350 students at a time. The cafeteria, which has stage facilities, can also double as an assembly hall seating 500 persons. This room overlooks, through a glass wall, a terrace and court.

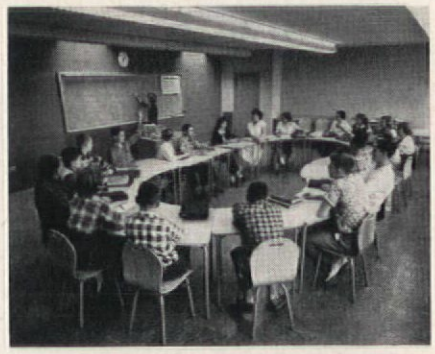
The building is open to the entire community, and its rooms are already being used for an extensive adult education curriculum. Other community groups also use the school's facilities for meetings. Three religious groups congregate in various parts of the buildings for Sunday services.

Future Campus Planned

Facilities to be added to the plant in the future include a football stadium, track, amphitheater, band shell, play field, hard-surface multi-use courts and a lagoon.



Above: the school's entrance lobby is used as an informal meeting place as well as for larger social gatherings. The entrance to the library is shown at the back of the photo



Above: a typical classroom, showing the serpentine furniture arrangement mentioned in the text. Below: the homemaking classes make use of a living-dining area which opens onto a screened porch. This department includes space for food preparation and a clothing laboratory

(*More news on page 328*)

WEATHER STRIPS FOR SLIDING DOORS

For Pleasanter Living

SLIDING DOORS...

WEATHER-PROTECTED BY "ACCURATE"

MODERN homes invite modern ways of living. And nothing could be more inviting than to bring the great outdoors into your living room or porch. Yes, SLIDING DOORS are today's *must*. All over America, leading architects are specifying SLIDING DOORS equipped with "Accurate" Metal Weather Strip Saddles, Sheaves and other fittings for smooth, quiet operation.

TRADE MARK ACCURATE REG. U.S. PAT. OFF.

For doors and windows of all types, "Accurate" Metal Weather Strip is unsurpassed. Write for working drawings, or if you prefer

ASK FOR ILLUSTRATED FOLDER

ACCURATE METAL WEATHER STRIP CO., Inc.

215 EAST 26th STREET, NEW YORK 10, N. Y.

Here's why more and more of America's famed buildings are installing the Yorkaire system of air conditioning

The YORKAIRE SYSTEM brings new standards of comfort to the modern miracle of air conditioning, yet see how simple it is, how easy to understand! . . .

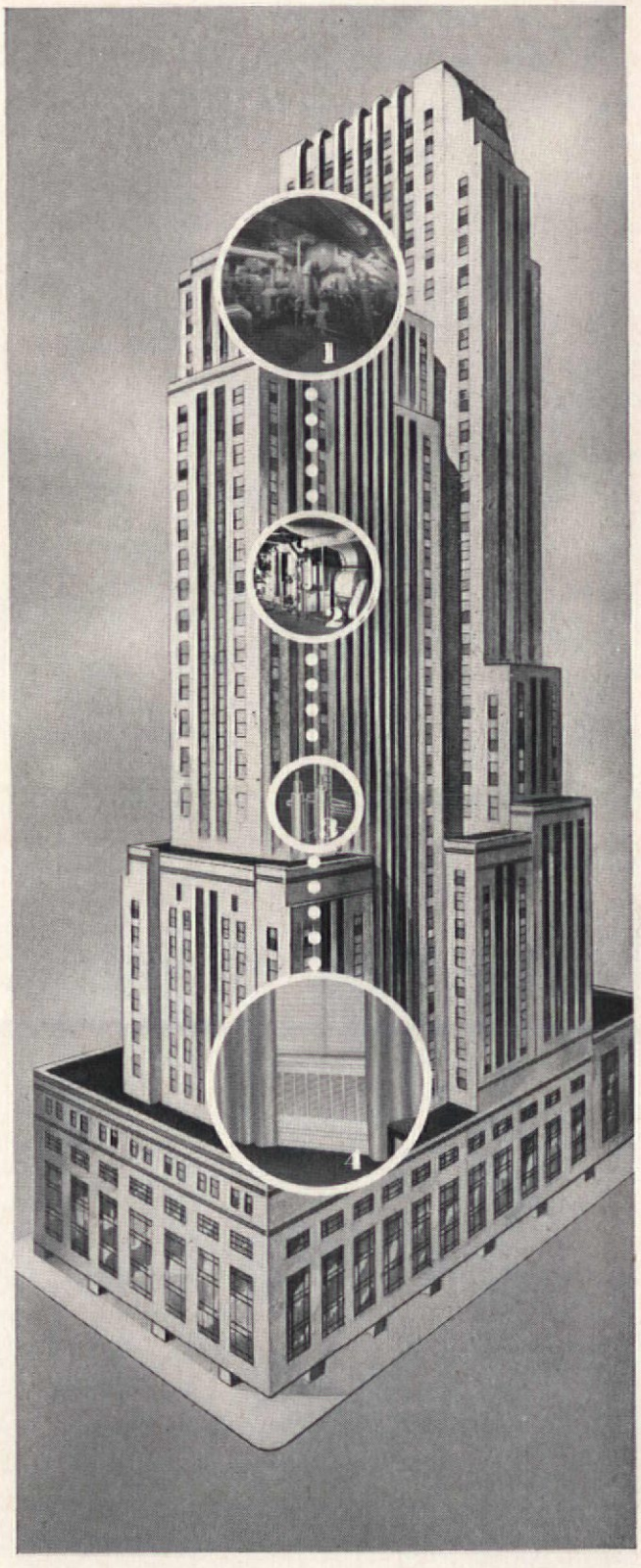
1. Source of comfort cooling is the famous and rugged York Turbo Water Cooling System which may be located on the roof of the building or in the basement.

2. Great volumes of air are brought into the building from outdoors at convenient points. This "raw" air is filtered, washed, cooled or heated, and conditioned for the right amount of moisture. When it's "just right for comfort," it begins its swift, silent journey to you.

3. Through small, space-saving, tightly sealed tubes the conditioned air is sent under mild pressure, branching out at each floor to the individual rooms. At the same time, small pipes carry hot water in winter and cold in summer to help you obtain the temperature you want.

4. In room units under the windows the air tube and water pipes converge. These units distribute the conditioned air in a gentle, quiet stream. A simple control allows you to refine the temperature to the conditions you desire, with no mixture of air from other rooms.

YORKAIRE SYSTEMS of Air Conditioning are being installed in building after building, old and new, across the country.



air conditioning by york

. . . Recent contracts include these famous buildings—Mile High Center, Denver; Netherland-Plaza Hotel, Cincinnati; Fulton National Bank, Atlanta; Equitable Life Assurance Society, San Francisco; Esso Standard Oil Company, Philadelphia. If you are not now enjoying this healthful comfort, perhaps you will, sooner than you think.

YORK CORPORATION York YORK, PA.

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885

(*Continued from page 326*)

YALE STUDENTS PUBLISH PERSPECTA NUMBER TWO

Perspecta, a journal published by architectural students at Yale University, put in its second appearance, its contents ranging from an involved discussion of the projected city plan for Philadelphia to an esoteric piece on architectural history and a discussion of architectural philosophy.

A foreword by George Howe, former chairman of the Department of Architecture at Yale, led off the issue. Mr. Howe also contributed the lead article, "Some Experiences and Observations of an Elderly Architect."

"The Responsibility of the Architect," discussed by a panel comprised of Philip Johnson, Louis Kahn, Vincent Scully, Pietro Belluschi and Paul Weiss, was a transcription of one of the school's

"studio discussions." Mr. Johnson defended the thesis that "architecture is an art primarily and hardly anything else," while Dean Belluschi insisted that the architect must also fulfill the social and psychological needs of humanity.

A bow to the turn-of-the-century Catalan architect, Antonio Gaudi, was made in an article on his Casa Mila, an apartment house built in Barcelona in 1905. Gaudi combined the Gothic and Art Nouveau to achieve a fantastic and unique architecture. The cover illustration showed the sculptured chimneys on the roof of the Casa Mila.

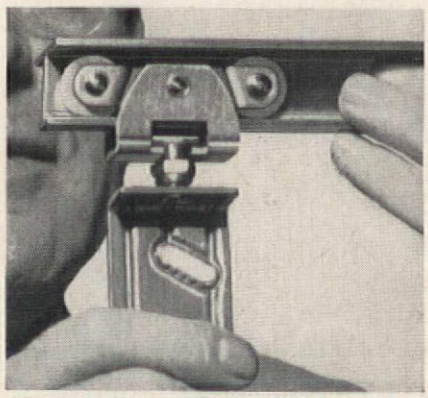
Carroll L. V. Meeks of Yale's Department of Architecture contributed a piece titled "Rome Ruined?" in which he protested against the current criticism in some areas that Rome's destruction has been completed by the "intrusion" of contemporary architecture.

A lengthy discussion of the projected plan for midtown Philadelphia was made by the architect, Louis I. Kahn, who is chief architectural design critic at Yale.

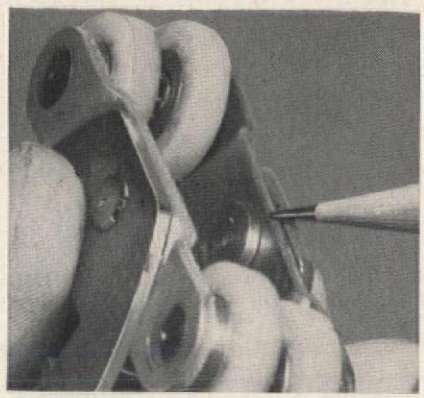
Architect Harwell Hamilton Harris contributed an article on "Rhythmic Integration of Panel Elements."

A report on the significance of the work of the Yale University Architect-Painter Collaborative in the fall of 1952 was given by R. Buckminster Fuller. The Collaborative had directed itself toward the problem of creating a prototype for an inexpensive, easily erected geodesic dome, using for the structure a corrugated paper board. Mr. Fuller's comments were followed by a report on the activities of the Fuller Study Group, a team of seven students continuing the work of the Collaborative, and by a description of the dome itself.

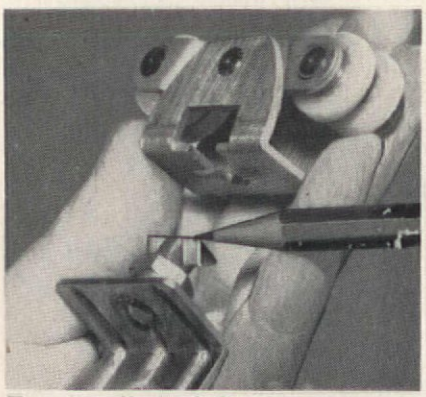
(*More news on page 332*)



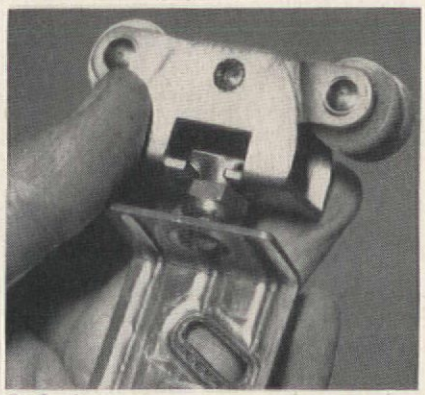
New product: Grant 7000 Sliding Door Hardware. We believe it to be the finest made. Here's why:



Floating action keeps nylon wheels (eight per door) in contact with track for smoothest, quietest action!



Easy installation! Carrier mounts on track. Separate apron is attached to door. Notice wedge-shaped bolt head.



It fits into v-groove on carrier, assuring perfect alignment. Elastic stop-nut is shake-proof, secures units firmly.

Time and Labor saved with this assembly line method of installation. Grant 7000 works beautifully, cuts costs!

Grant Pulley and Hardware Corporation 31-71 Whitestone Parkway Flushing, N. Y.

Please send me specifications on

Grant 7000

Sliding Door Hardware

Name .....

Company .....

Address .....

City .....

State .....

Smart flooring for
your practical clients . . .

MATICO ARISTOFLEX

low-cost vinyl-plastic
tile flooring

Smart clients are usually practical . . . that's why they like MATICO ARISTOFLEX vinyl-plastic tile... the flooring that's both smart and practical. Available in low-cost standard gauge, as well as ⅛" thicknesses, Aristoflex is ideal for almost every type of installation. Vinyl-plastic throughout (no felt backing), it can be used on, above, or below grade... it resists acid, alkali, petroleum and grease ... is easy to maintain... and comes in 12 clear, bright colors. Yes, when next you specify tile flooring be sure to consider luxurious, long-lasting MATICO Aristoflex!

Write Department 8-5 for full details and specification data today.

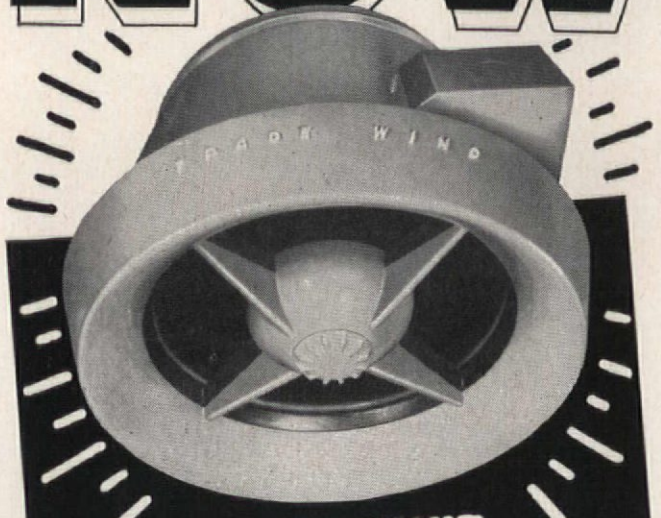
QUALITY CONTROLLED MATICO PRODUCTS Guaranteed by Good Housekeeping

MASTIC TILE CORPORATION OF AMERICA

Joliet, Ill • Long Beach, Calif. • Newburgh, N. Y.

Manufacturers of Aristoflex • Confetti • Parquetry • Asphalt Tile • Cork Tile • Plastic Wall Tile

NOW



TRADE-WIND
AXIAL FLOW VENTILATOR

A CEILING OR WALL VENTILATOR THAT GIVES YOU

LOW PRICE
APPEARANCE
QUIETNESS
PERFORMANCE

The new low-cost Trade-Wind **Axial Flow** Ventilator now makes it possible to use either wall or ceiling installation with the **same unit** of this revolutionary new ventilator. The unit can be installed between joists in the ceiling or between studs in the side wall.

The Trade-Wind gives you straight-through axial air flow plus super-powered suction. And it sells at a low, l-o-w price which makes kitchen ventilation a must even in the most economically designed house. And it's so good looking! Styled by a top industrial designer, the **Axial Flow** adds a new distinctiveness to every kitchen.

The optional backdraft damper, shown at left, and wall cap, shown above, are interchangeable and make the Axial Flow the most versatile ventilator on the market.

Write or wire for complete details today.

Originated by
TRADE-WIND MOTORFANS, INC.
5707 S. MAIN ST., LOS ANGELES 37, CALIF.

There is no substitute for

marble

The Marble Institute of America protects your heritage in one of America's great industries. Each of its members is pledged to provide the finest of materials, finished in America, by Americans, no matter what its source. You can depend on the integrity of your local M.I.A. member.

Literature is available to assist you in your contact with clients. For this, or technical data, or for a complete list of M.I.A. members, write the Managing Director:

MARBLE MIA INSTITUTE OF AMERICA, INC.
108 FORSTER AVENUE, MOUNT VERNON, N Y

High school gymnasium, size 190x168 feet, with seating capacity of 4,500. Roof is supported by glued laminated timber arches spaced at 19 feet. Roof deck is two-inch tongue-and-groove sheathing with built-up surface. Architect: Donald W. Edmundson, Portland, Oregon.

Use Glued Laminated Timber Arches for better gymnasiums at budget prices

Any school district can have this spacious gymnasium with its unobstructed play area and handsome appearance without undue financial strain. For the timber arches carry the entire roof load, eliminating costly load bearing walls and bringing total cost down within reasonable limits.

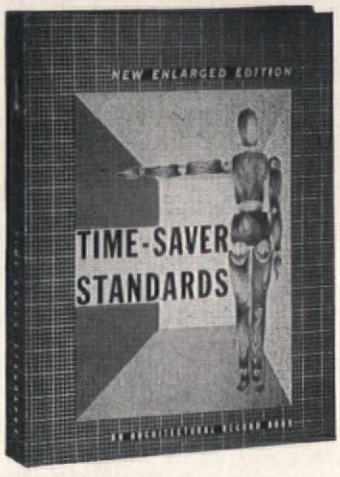
To see how you can make similar economies in construction of classrooms, auditoriums and vocational shop buildings, ask for the booklet, "Modern Functional Schools". Get it free from your nearest Timber Structures office, or write us.

TIMBER STRUCTURES, INC.
P. O. BOX 3782-A, PORTLAND 8, OREGON

Offices in Ramsey, N. J.; Chicago; Detroit; Lenexa, Kansas; St. Louis; Minneapolis; Columbus; Omaha; Dallas; New Orleans; Birmingham; Charlotte; Memphis; West Hartford; Seattle; Spokane; Eugene; Richmond, California

The NEW ENLARGED *Edition of* TIME-SAVER STANDARDS

Contains 319 Standards! 888 Pages! More than a Thousand Charts, Illustrations, Diagrams! 12-page Master Index!



Designed for the use and guidance of architects, engineers, specification writers and building technicians, TIME-SAVER STANDARDS is by all odds the most useful reference work of its kind ever published. Offers proved-by-experience solutions to hundreds of structural problems — the one indispensable source of essential architectural data on architectural design, materials technology, engineering data, and building practice.

TIME-SAVER STANDARDS contains 319 complete technical studies as selected month by month by ARCHITECTURAL RECORD over a fourteen year period from the masterworks of the nation's leading architects and engineers. It is the finest illustrative material in existence.

Experience shows that a single item in this massive compilation of architectural monographs can actually save thousands of dollars in economy construction . . . in weary hours of research. For here in handy, compact form is the accurate information, detailed specifications and concise planning data that will help you and your staff do better work . . . *faster*.

Order Today

Fill in the coupon below; attach your check of $12.50 and return it today. Act now! Money refunded in full if you are not completely satisfied. To expedite delivery, please print name plainly on coupon.

Book Department, ARCHITECTURAL RECORD
119 West 40th Street, New York 18, N. Y.

Enter my order for.....copy(s) of the new enlarged edition of TIME-SAVER STANDARDS at $12.50 per copy.

(for N.Y.C. delivery, add 38 cents tax — $12.88 in all)

Name.....

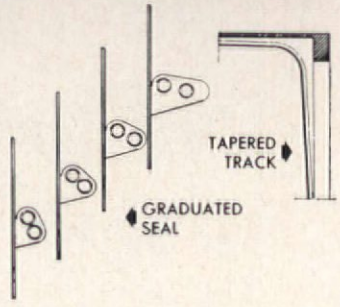
Address.....

City.....
Zone *State*

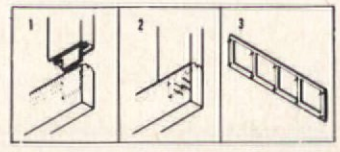
Save mailing costs: Send payment of $12.50 ($12.88 in N.Y.C.) and book will be mailed postpaid.

Just a few of the reasons it is wise to specify RAYNOR wood sectional overhead doors exclusively!

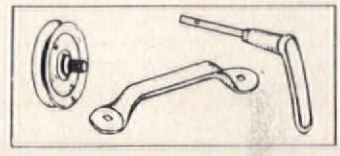
Graduated Seal — produced by Raynor, seals the door sections against the jamb or molding only when the door is completely closed. At all other times the free-easy-rolling Raynor door operates with finger-tip control.



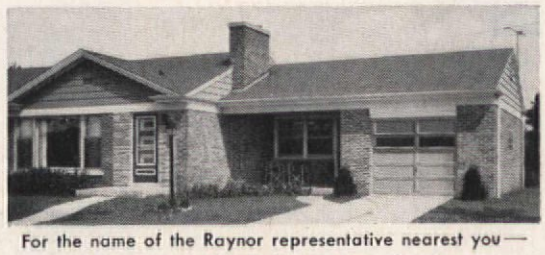
Three-Way Stress Construction — is utilized on all Raynor standard door sections:
1 — mortised and tenoned.
2 — steel doweled.
3 — waterproof glued.



Raynor Exclusive Protecto-Dip Process — affords complete weather protection for all interior hardware. Exterior hardware is cadmium plated. Lock handle chrome.



Raynor Doors — are built from the choicest material. Only the finest kiln dried lumber is used in Raynor rails and stiles and panels are of laminated waterproof plywood.



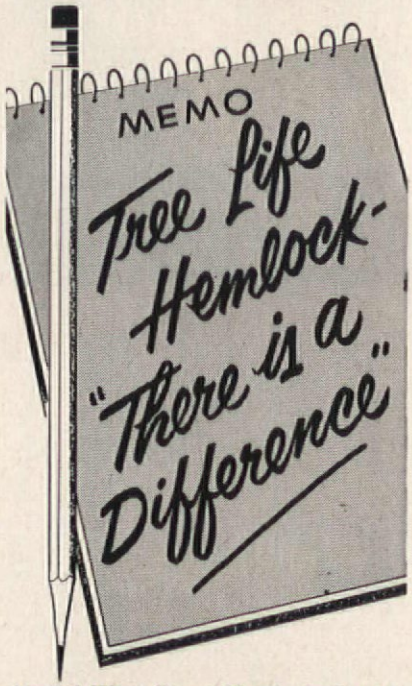
For the name of the Raynor representative nearest you — check your telephone directory or write direct.

RAYNOR
MANUFACTURING CO.
DIXON, ILLINOIS

SEE OUR CATALOG IN SWEETS

Builders of a Complete Line of Wood Sectional Overhead Doors

Make a note!



Right! West Coast Hemlock should never, *never* be confused with Eastern Hemlock. West Coast Hemlock (Tsuga heterophylla) is an entirely *different* species. TREE LIFE West Coast Upland Hemlock, grown only at high altitudes on western slopes of the Cascade Mountains, is a superior wood for many uses—the finest type of Hemlock grown! Check its features!

- West Coast Hemlock is strong. Has fewer and smaller knots.
- West Coast Hemlock is uniform, relatively hard. Minimum spiral grain. Fine texture.
- West Coast Hemlock is stable, easy to work. Takes paint smoothly. NO pitch pockets.
- West Coast Hemlock is durable. Not brashy.

Write for "TREE LIFE HEMLOCK," a 20-page booklet on properties and uses. St. Paul & Tacoma Lumber Company, Dept. AR, Tacoma 2, Washington.

Specify with Confidence

TREE LIFE
WEST COAST UPLAND® HEMLOCK

ANOTHER FAMOUS MEMBER OF THE TREE LIFE FOREST PRODUCTS FAMILY

ST. PAUL & TACOMA LUMBER CO. — TREE LIFE FOREST PRODUCTS — ESTABLISHED 1888

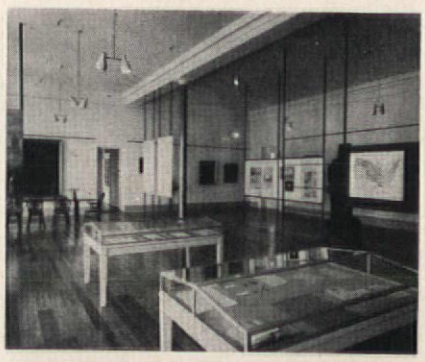
THE RECORD REPORTS

(*Continued from page 328*)

EXHIBITIONS RESULT IN NEW LOOK FOR MUSEUM

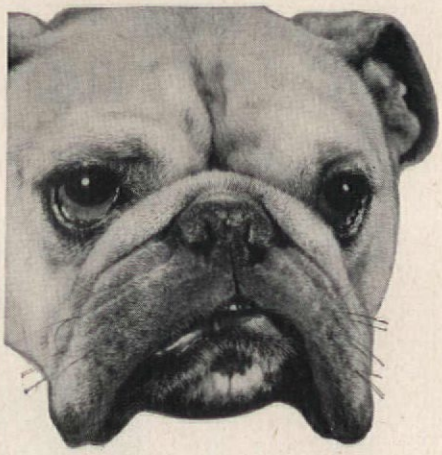
In honor of the 150th anniversary of the signing of the Louisiana Purchase, the Louisiana State Museum in New Orleans sponsored two exhibitions, the design of which gave the interior of the old museum a distinctly contemporary appearance. In charge of designing the exhibits was Henry W. Krotzer Jr., member of the museum staff. Advising architects were James R. Lamantia Jr. and Samuel Wilson Jr.

One exhibit, the Louisiana Purchase Sesquicentennial Exhibition, was dis-



In the Cabildo: above, Sala Capitular where Louisiana Purchase was signed; below, gallery

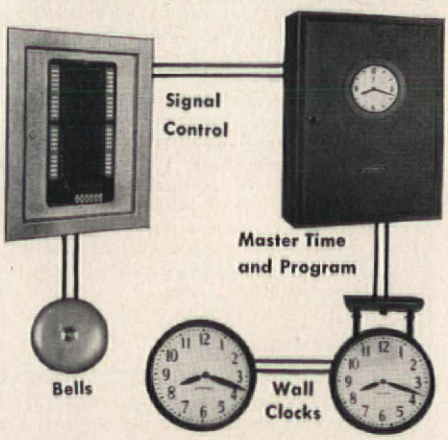
(*Continued on page 336*)



DEPENDABLE

STROMBERG

COMPLETE CLOCK AND PROGRAM SYSTEMS *for* SCHOOLS • HOSPITALS PUBLIC BUILDINGS • PLANTS



Stromberg time systems maintain the ***complete accuracy of each unit.*** They are timed by a synchronous motor Master Unit that has a jewelled spring power emergency reserve. Every clock on the system can be maintained at a correct time ***even during a power failure.*** Stromberg time systems include a master control, program unit, signal control panel, bells and buzzers, standard clocks, skeleton dial clocks, tower clocks and time recorders.

for complete information write

STROMBERG
TIME CORPORATION
GT *subsidiary of general time corp.*
THOMASTON, CONNECTICUT

KOHLER ELECTRIC PLANTS

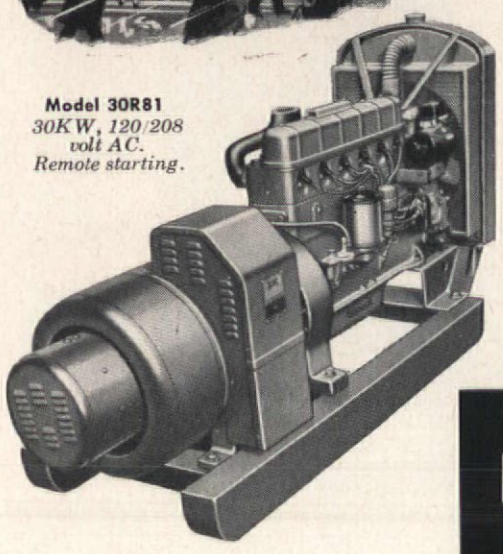
Independent Source of Electricity

Stand-by protection when central station power is cut off

Increasingly, architects are making Kohler Electric Plants a part of their building specifications, to provide a reliable safeguard *before* the emergency.

Auditoriums, stores, schools, theatres and other buildings where people congregate need stand-by electricity to prevent sudden darkness; hospitals, sanitariums, to maintain nurses' call bells, operating room and exit lights, X-rays, iron lungs, sterilizers, incubators; homes, for automatic heat, refrigeration. It prevents interruptions in hatcheries, greenhouses, hotels, motor courts, communication systems, airports, refineries, filling stations, bakeries, sewage treatment and filtration plants.

Kohler stand-by plants take over critical loads *automatically* when power is cut off by storms or accidents. Write for folder 15-R.

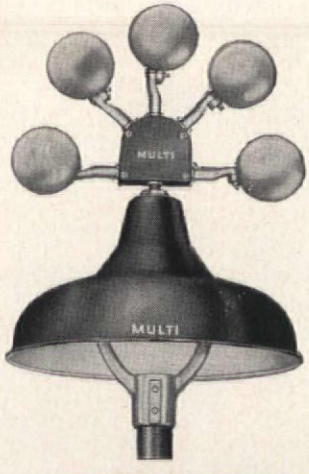


Model 30R81
30KW, 120/208 volt A.C.
Remote starting.

Kohler Co., Kohler, Wisconsin. Established 1873

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS
AIR-COOLED ENGINES • PRECISION CONTROLS



FOR GOOD LIGHTING OF PARKING AREAS

SPECIFY WITH CONFIDENCE IN CUSTOMER SATISFACTION

MULTI

LUMENALL POST LIGHT
with Five Cluster Lampholders
Cat. No. 3875

A QUALITY UNIT
PORCELAIN ENAMELED REFLECTOR
PLENTY OF ROOM FOR SPLICING
IN CAST ALUMINUM JUNCTION BOX

SEE OUR CATALOG IN SWEET'S ARCHITECTURAL

MULTI SPAR LITE

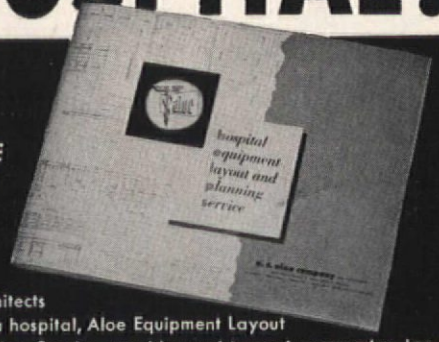
A STURDY UNIT FOR INDOOR AND LIMITED OUTDOOR LIGHTING. ONE-PIECE DRAWN STEEL HOLDER, THOROUGHLY PLATED. FIXED GASKET SEALS AGAINST LAMP.

CAT. No. 800

MULTI ELECTRIC MFG. INC.
4223 W. LAKE ST. CHICAGO 24

PLANNING A HOSPITAL?

THIS FREE BOOKLET WILL PROVE VALUABLE TO YOU



To all architects planning a hospital, Aloe Equipment Layout and Planning Service provides assistance in preparing layouts and detailed information concerning fixed equipment exclusively related to hospitals; i.e., cabinets and casework, sterilizers, operating lights, x-ray view boxes, central suction systems, etc.

mail today

A. S. Aloe Company AND SUBSIDIARIES
1831 Olive St., St. Louis 3, Mo.

Send your Free brochure:
Hospital Equipment and Planning Service.

Name _____

City _____

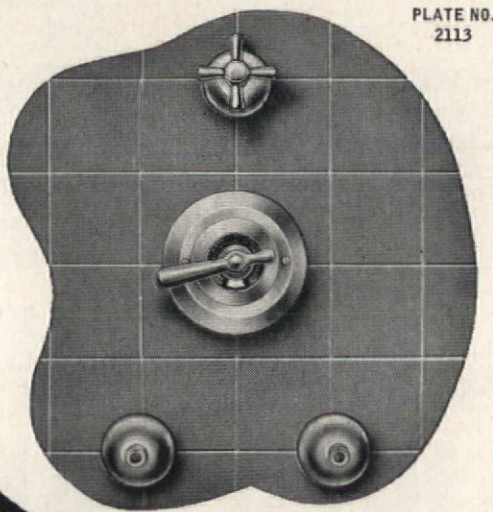
State _____

NOW and ten years from NOW

. . . contented customers will confirm YOUR reputation!

. . . the best insurance YOUR REPUTATION can have! Finished in polished chrome where exposed, the model BC Concealed Thermostatic Shower Mixing Valve has all sliding parts of stainless steel for corrosion proof operation. Actual tests show that the model BC gives highest degree of control . . . BE SURE . . . WITH "BC."

PLATE NO. 2113



Compare!

List the facts . . . Check them off . . . Lawler comes out first every time! YOUR REPUTATION is protected!

LAWLER "BC" SHOWER MIXING VALVE

- Integral Shut Off.
- Stainless Steel in All Sliding Parts.
- Non-ferrous Hydraulically Formed Bellows Type Thermostat.
- Positive Hot Non-scald Shut Off.

The Lawler Line Thermostatic Controls

"Performance-Tested" for Longer Life

STEAM TEMPERATURE REGULATORS · SHOWER MIXING VALVES · WATER CONTROLLERS · TEMPERING VALVES

LAWLER AUTOMATIC CONTROLS, INC.

453 North MacQuesten Parkway Mount Vernon, New York

buy lighting — not fixtures . .

INVEST IN AMERICA'S FINEST FLUORESCENT LIGHTING

Write for catalog showing complete line of commercial and industrial units.

Smithcraft

LIGHTING DIVISION

CHELSEA 50, MASSACHUSETTS

Summerbell for CHURCHES

SUMMERBELL glued laminated arches and beams give the Architect the widest latitude in designing for the modern or the traditional . . . for the large cathedral or the small chapel. In addition to their lasting beauty, they provide structural advantages which effect substantial economies in overall costs. Write for illustrated brochure.

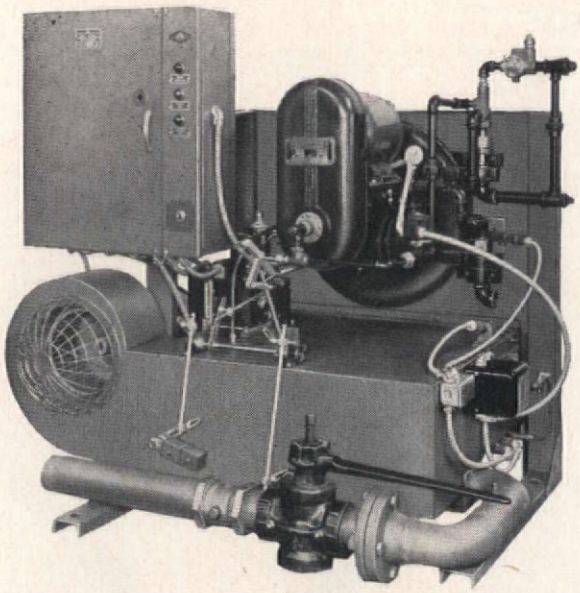
Methodist Church, Sherman Oaks, Calif. Architects, Frick & Frick. General Contractors, J. H. Baum & Sons.

Glued Laminated Construction • Summerbell Bowstring Trusses Lamella Roofs & All Types of Timber Structures

For quality, economy and satisfaction, specify SUMMERBELL

Summerbell ROOF STRUCTURES

825 EAST 29TH STREET • BOX 218, STATION "K" • LOS ANGELES 11



WEBSTER ROTONETIC*
DUAL FUEL FIRING BURNER

- ✓ Sizes from 75 to 300 horsepower.
- ✓ Minimum gas pressure requirements.
- ✓ Low installation costs.
- ✓ Maximum efficiencies on BOTH gas and oil.
- ✓ Minimum base height requirements.
- ✓ Utilizes all grades of fuel oil.
- ✓ Extremely low noise level.
- ✓ Approved electronic combustion safeguard system.
- ✓ Simpler changeover than ever before.
- ✓ One hundred per cent forced draft.
- ✓ Completely assembled, piped, wired and tested.

These and many other outstanding features combine to provide the same dependable high quality performance as the WEBSTER DYNETIC gas burner. Neither fuel must suffer if the WEBSTER ROTONETIC is used. With integral pumps, integral oil preheaters for heavy oils, patented oil burner "flame-shaping" vanes, and full modulating or optional high-low control, the WEBSTER ROTONETIC is designed to provide long lasting customer satisfaction the year around.

It is furnished with a precast refractory front as an integral part of the burner assembly. The installer need only finish the furnace wall on each side and above the burner.

Listed by Underwriters' Laboratories, Inc.

Write for Literature

*Trademark

The Republic National Bank Building of Dallas chose WEBSTER!

The WEBSTER ENGINEERING COMPANY
TULSA, OKLAHOMA
Division of SURFACE COMBUSTION CORPORATION, Toledo, Ohio

ARCHITECTS
+ BOSTON
+ JUNE 15th
= *a rare opportunity to cover the*

A.I.A. CONVENTION!

Yes, on June 15th the members of the A.I.A. meet again . . . this time in Boston. And again Construction News has been appointed by the A.I.A. to be the official reporting organ to cover this annual event.

Why does A.I.A. ask Construction News to do this? Because architects who have attended in the past have asked their committees for this service. They consider the editorial and advertising content well worth having. Many have saved these issues to take home and use. They have found their complete, well integrated items valuable for later reference.

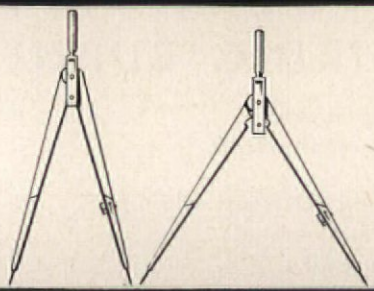
The two special convention issues of Construction News offer a rare opportunity for all building material and equipment manufacturers to reach this once-a-year audience. These issues will give manufacturers full coverage of all architects in attendance and all other members of A.I.A. throughout the country. For you with a stake in construction, Construction News presents here the greatest opportunity of the year for promotion.

Advertising in Construction News convention issues gains *direction . . . impact . . . penetration* because it is so closely allied to the interests of their architect readers.

CONSTRUCTION NEWS

Daily Tabloid Newspaper published by F. W. Dodge Corporation
431 South Dearborn Street, Chicago 5, Illinois

in any size kitchen



WasteXit Can Cut Waste Disposal Costs

Garbage handling costs money. But an efficient WasteXit can eliminate these costs and increase kitchen sanitation at the same time. There's a WasteXit to meet every requirement.

For Large Kitchens The Model "MA"

A powerful floor type disposer that handles all types of waste. With an "MA" on the job you need no separate garbage room.

For Small Kitchens — The Model "L"

A low-priced disposer with a full ½ h.p. motor handles all types of food waste easily. Rugged enough for 24-hour operation. Can be installed in scrap or preparation tables with new cone adapters now available.

New Specification Sheets Now Available

Write for your copies today, using the coupon below. You'll find that Salvajor kitchen sanitation equipment will help you design a better kitchen and save your clients time, labor and money.

Salvajor

R No. 5

The Salvajor Company
118 Southwest Blvd., Dept. AC
Kansas City, Mo.

Please send complete information on the Salvajor line of kitchen sanitation equipment.

Name_____

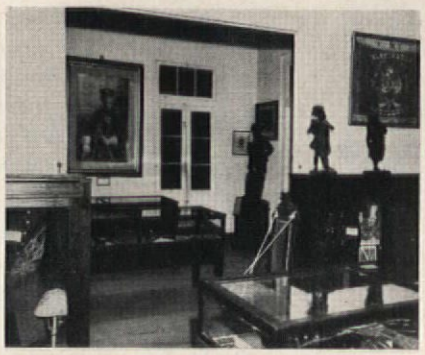
Address_____

City_____ State_____

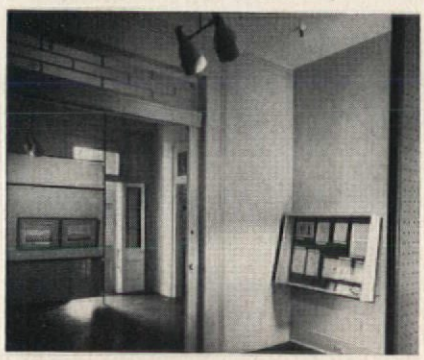
THE RECORD REPORTS

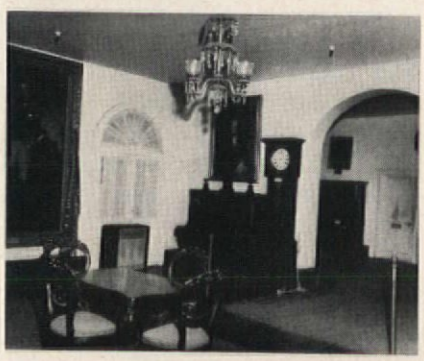
(*Continued from page 332*)

played in the Cabildo, New Orleans landmark; the other, called France-Louisiana, which included material on loan from the French government, was shown in two small houses in back of the Cabildo, the Jackson and Creole Houses.



Before and after: two views of the same room in the Creole house, part of Louisiana State Museum





Before and after: a room in the Jackson House; below, as it appears housing French exhibit

(*More news on page 340*)

THE MILLER COMPANY

THE TRUE CRITERION OF VALUE

in lighting fixtures is continuous dependable performance. For that, look to its source. Behind Miller fixtures—Fluorescent, Incandescent, Mercury for industry, commerce and schools—are 110 years manufacturing know-how—1,000 combined man years field lighting engineering—million-dollar production facilities.

Meriden, Conn. Leaders in lighting since 1844

solves all your window problems!

the ALL Flexalum® VENETIAN BLIND

stays beautiful for years—
spring-tempered aluminum slats and plastic tapes don't wear out.

gives maximum light and air control—
Lets in light without glare, air without drafts.

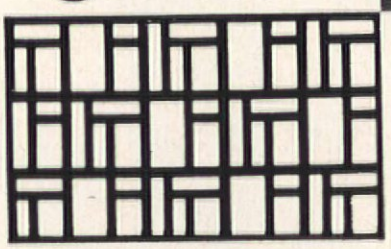
keeps maintenance costs at minimum—
Wipes clean with a damp cloth. Mechanism is permanently lubricated.

all component parts manufactured by one responsible company—
Parts are designed for each other, match exactly in color. 192 possible color combinations.

Write for free copy of FLEXALUM Architect's Portfolio to Hunter Douglas Corporation, 150 Broadway, New York 38, N. Y.

In Canada: Hunter Douglas Ltd., 9500 St. Lawrence Blvd., Montreal, Quebec.

Grilles



FOR THAT DISTINCTIVE LOOK

Just as eye-appealing as they are functional, Hendrick Perforated Metal Grilles will greatly enhance the beauty of your decorative motif.

They provide more-than-ample open area for the free passage of air, and are available in a wide variety of designs to best set off your decor. And they're easy to install — always lie flat because of a special flattening operation in their manufacture.

Over one hundred basic designs are available to choose from — many are obtainable only from Hendrick. Hendrick will gladly cooperate with architects to help select from a wide range of standard and special designs. For more complete details write Hendrick today!

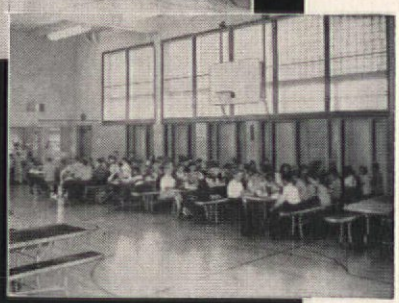
Hendrick
MANUFACTURING COMPANY

38 DUNDAFF ST., CARBONDALE, PA. • *Sales Offices in Principal Cities.*
Perforated Metal • Perforated Metal Screens • Wedge-Slot Screens • Architectural Grilles • Mitco Open Steel Flooring • Shur-Site Treads • Armorgrids

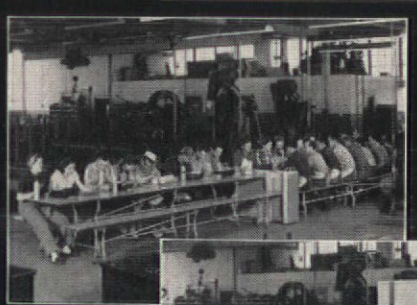
---

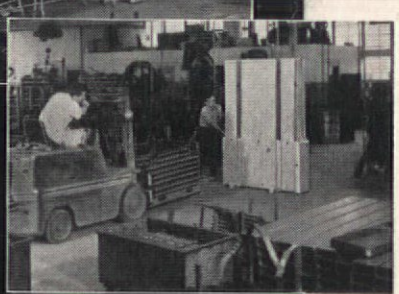
FOR SCHOOLS • INDUSTRIAL PLANTS • INSTITUTIONS • COMMUNITY CENTERS

YOU CAN OFFER MORE FACILITIES AT LESS COST BY MAKING SPACE SERVE DOUBLE DUTY WITH SCHIEBER FOLDING TABLES AND BENCHES



Combine activities area and lunchroom





Eliminate the single-purpose lunchroom

Schieber now builds 3 sturdy models—two that fold and roll into the wall and a mobile unit. Thousands of installations attest to the practicability of this equipment. Let us advise where you can observe it in use. Representatives in all areas.

Consult Sweet's or write for catalogs.

SCHIEBER
Brightmoor Station
DETROIT 23, MICHIGAN

LIME...that is whiter...fresher...more plastic...more uniform!

...IN OHIO ZIG ZAG BAGS.....FROM THE CENTER OF THE WORLD'S PUREST LIME DEPOSIT!

The Ohio Hydrate & Supply Company • Woodville, Ohio

"Producers of Lime & Limestone Products for Building, Agriculture & Industry"

Keep keys

AT HAND... IN THE RIGHT HANDS!

with

TELKEE Moore Key Control

A METHOD FOR FILING AND CONTROLLING KEYS

If you want to give the owner control over his keys, reduce his heavy maintenance expense and improve his employee relations, all you need to do is always specify and always insist on delivery of Moore Key Control. The general contractor will be tickled to death—it'll save him lots of money, too. Write today!

Attach to your letterhead and mail today

P. O. MOORE, INC., Dept. AR-11
300 Fourth Ave., New York 10, N. Y.

I would like to have, without obligation, literature describing your product.

Name.....

Address.....

City, State.....

•CLIP THIS AD TO YOUR LETTERHEAD AND MAIL FOR FULL INFORMATION

CONNOR ENGINEERING CORPORATION

dorex® air recovery

REDUCES AIR CONDITIONING COSTS

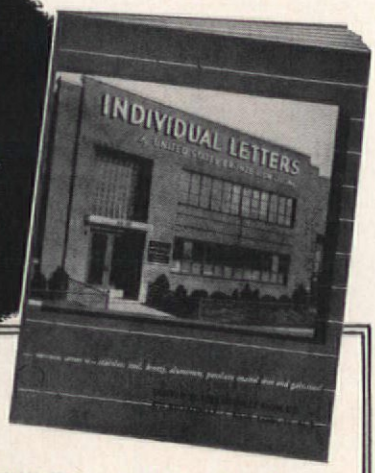
Dorex Air Recovery "manufactures" *new* air by passing *used* air through Dorex Activated Carbon, the most powerful adsorbing agent known. More than 6,000 users and 20 years' experience indicate that every $100 invested in Dorex should return a $400 saving in the cost of original heating and cooling equipment. In use, every $1.00 spent for Dorex maintenance should produce a $4.00 saving in operating costs. Get the full story of Dorex Air Recovery savings today.

CONNOR ENGINEERING CORP. • DANBURY, CONN.

AD TO YOUR LETTERHEAD AND MAIL FOR FULL INFORMATION • CLIP THIS

AND MAIL FOR FULL INFORMATION • CLIP THIS AD TO YOUR LETTERHEAD

Write for this **Free** *catalog*



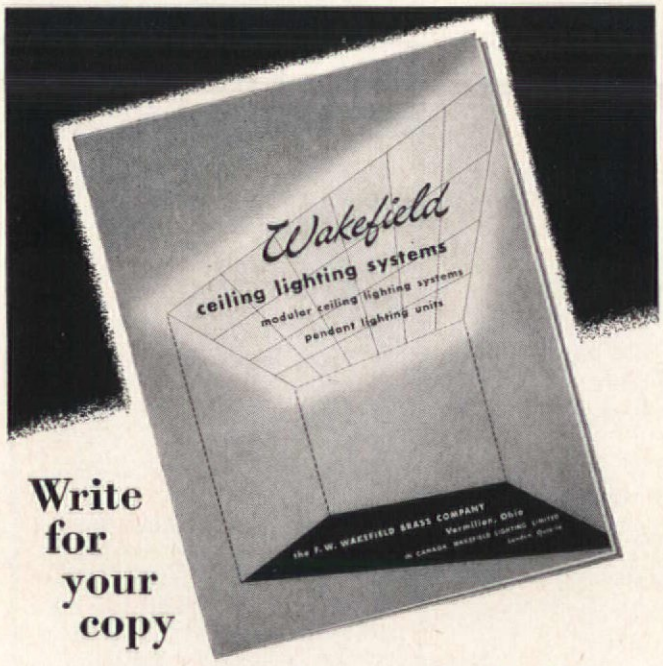
A valuable source of ideas for the use of all different styles of

INDIVIDUAL LETTERS for Building Facades

At the same time, be sure to request our informative, profusely illustrated catalog of Bronze and Aluminum Tablets, Memorials, Honor Rolls, Testimonials, Awards, Donor Plaques, Bulletin Boards, etc. Quotations and preview sketches always submitted promptly and without obligation.

Our modern plant, Woodside, L. I.
"Bronze Tablet Headquarters"

UNITED STATES BRONZE SIGN CO., Inc.
570 Broadway, Dept. AR, New York 12, N.Y.



Write for your copy

Compact 8-page Digest Catalog No. 54-S containing basic information, illustrations, drawings, specifications and illumination computations for our complete line of ceiling lighting systems and pendant lighting units.

THE F. W. WAKEFIELD BRASS COMPANY
Dept. R, VERMILION, OHIO
In Canada: Wakefield Lighting Limited, London, Ontario

Housewares department, Georg Jensen, Inc., N.Y.C.
Floor installed by Walton Resilient Floors, N.Y.C.

BEAUTY ...with a *Bonus!*

NO doubt about it—a floor of lovely Dodge Vinyl-Cork tile is easy on the eyes. Brings out the best in a room. But there's a bonus with that beauty, a whole raft of extra features that make Dodge Vinyl-Cork tile—and no other—the floor you ought to buy.

For a lovely Dodge Vinyl-Cork tile floor is easy on the *feet*, too . . . quiet, comfortable, safe to walk on even when it's wet. Tough vinyl* plastic makes it durable. Soap and water keep it clean. Good reasons, all of them, for choosing Dodge Vinyl-Cork tile for your next installation.

Dodge Standard Cork Tile

For a beautiful top-quality flooring, choose Dodge Standard Cork tile. Smooth, dense, resilient . . . Dodge Standard Cork tile stays lovely longer!

For complete data, see SWEET'S FILE, Architectural $\frac{12i}{DO}$ —or write for catalog.

DODGE CORK COMPANY, INC.
Lancaster, Pa.

DODGE Vinyl-Cork TILE

*topped with Firestone Velon

NOW for first time in building history you can specify a

PERMANENT BOND

between GYPSUM • LIME-PUTTY • CEMENTS • ACOUSTICAL PLASTER . . . to themselves . . . or to practically any other structurally sound surface . . . even glass!

PLASTER-WELD and WELD-CRETE

Brandywine Apts., Washington, D. C.

One of hundreds of Plaster-Weld and Weld-Crete installations. In this case, Plaster-Weld was used to bond white finish coat of plaster to all exposed concrete surfaces . . . ceilings, columns, etc. ARCHT.: Corning and Moore; GENL. CONTR.: Charles E. Smith; PLSTG. CONTR.: James Kane and Company.

Today Plaster-Weld (for bonding plaster) and Weld-Crete (for bonding concrete) are being specified by leading architects for permanently bonding like and unlike cementitious materials . . . on construction, repair and maintenance jobs ranging from multi-million dollar hotels, apartments, factories, office buildings, to small homes, tunnels, sidewalks, floors, etc.

WHAT ARE THEY?

Liquid compounds, similar in all respects except as to color and viscosity. Applied by brush, roller, spray gun directly to floors, walls, ceilings, old or new. No need for surface preparation. Equal bonding permanence all climates, all types of surfaces, all sorts of conditions.

WHERE USED, BY WHOM

A few examples. Others gladly sent on request, including applications and names of architects, contractors, builders.

Midway Gardens Apts., Chicago, Ill.: ARCHTS.: Holabaird, Root & Burgee & Associates; GENL. CONTR.: S. N. Nielson Co.; PLSTG. CONTR.: McNulty Bros. Co.

Hollywood-Knickerbocker Hotel, Hollywood, Cal.: ARCHT.: W. D. Peugh and Associates, W. B. Glynn and A. J. Lauket; GENL. CONTR.: Walter Olerich; PLSTG. CONTR.: L. B. Paulsen.

National Institute of Health Clinical Center, Bethesda, Md.: GENL. CONTR.: John McShain; PLSTG. CONTR.: James Kane and Company.

Lansdowne Racetrack, Vancouver, B. C. PLSTG. CONTR.: Tommy Turner.

WHEN TO SPECIFY

Whenever you need to bond a plaster finish to practically any wall, ceiling or floor surface, old or new, specify Plaster-Weld. For bonding cement and concrete . . . specify Weld-Crete. Sold by leading Building Material Supply dealers. **Send today for complete descriptive literature. Address Department 3.**

Larsen Products Corp.

4934 ELM ST. BETHESDA, MD.

BONDS...that never let go!

THE RECORD REPORTS

(*Continued from page 336*)

Sun-control devices in Standard-Vacuum's new Bombay offices consist of concrete louvers on all sides of the building; additional protection is afforded by horizontal louvers on two sides

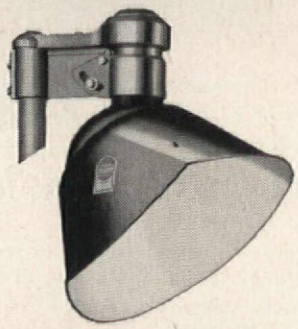
BOMBAY OFFICE BUILDING HAS CONCRETE LOUVERS

Currently under construction in Bombay's Back Bay Reclamation area, Standard-Vacuum Oil Company's new office building will have built-in sun control devices.

Vertical louvers of reinforced concrete are to be placed in front of windows on all four sides of the building. In addition, there will be three horizontal louvers per floor on the two sides of the building where the sunlight is strongest. The louvers are designed to serve a two-fold purpose: to prevent the strong Indian sun's glaring through the building's glass walls and to reduce the load on the air-conditioning system. Chauncey V. Riley, of New York, was consultant for the design of the louvers as well as the main entrance.

Construction of the seven-story building, which was designed by J. A. Ritchie, Bombay architect, was begun in June and is expected to be completed by the end of this year. The structure will be of reinforced concrete slab. Cost of the completed building is estimated at $1.25 million.

ABOLITE FLOODLIGHTS



FOR MERCURY VAPOR AND INCANDESCENT OUTDOOR LIGHTING

- RECREATION AREAS
- SPORTS FIELDS
- PARKING SPACES
- SWIMMING POOLS
- STORAGE AREAS

Whether your outdoor lighting plans call for mercury vapor or incandescent units, you can be sure of maximum lighting efficiency and longer weather resistant service with ABOLITE Floodlights.

Reflector bodies are drawn from heavy gauge steel, then finished inside and outside with Lifetime Porcelain Enamel. The inside surface is Titanium "whiter-than-white" lifetime porcelain enamel that floods daylight brilliance. In addition, ABOLITE Floodlights are designed for easy installation — and there's a type to meet every requirement. Specify ABOLITE — the first name in reflectors. Write today for the ABOLITE Catalog.

ABOLITE Lighting DIVISION
THE JONES METAL PRODUCTS CO.
WEST LAFAYETTE, OHIO

seaporcel architectural porcelain metals

SEAPORCEL
PORCELAIN PANELS FOR EXTERIOR FORMS, INTERIOR FORMS, SIGNS AND LETTERS

SEAPORCLAD
INSULATED PORCELAIN PANELS

SEE OUR CATALOG IN SWEET'S

Seaporcel

SEAPORCEL METALS, INC.
2800 Borden Avenue, Long Island City 1, N. Y.
SEAPORCEL PACIFIC, INC.
1461 Canal Avenue, Long Beach 13, Calif.

FOR YOUR PROTECTION

insist on

Quality Approved

ALUMINUM

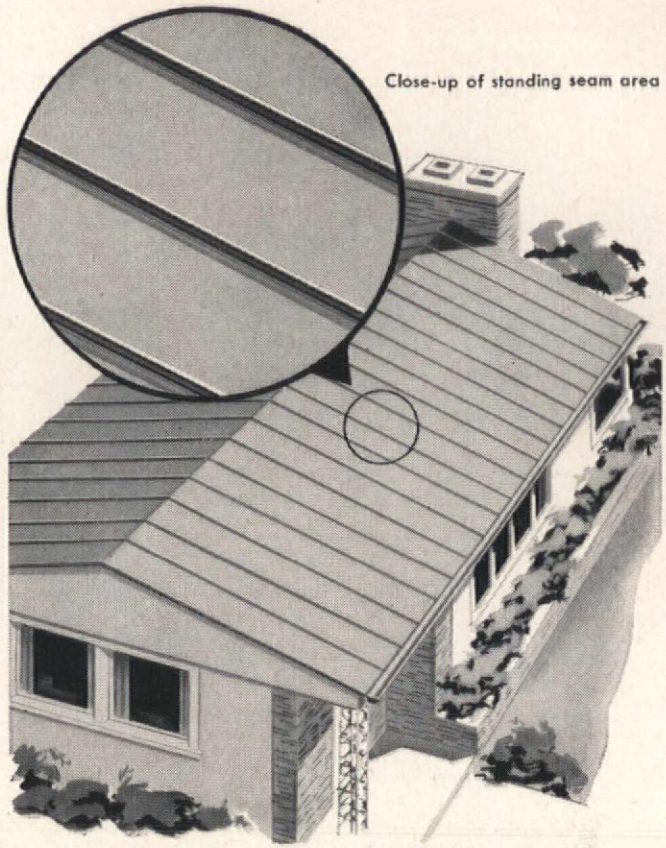
DOUBLE-HUNG CASEMENT PROJECTED AWNING

WINDOWS

Lower maintenance costs, no painting, easy operation, years of trouble-free service . . . these are a few of the benefits your clients get with "Quality-Approved" aluminum windows . . . windows that have been tested for quality, strength, construction and minimum air infiltration.

For detailed specifications and names of manufacturers, consult Sweet's 10a/ALU or write direct to

ALUMINUM WINDOW MANUFACTURERS ASSOCIATION
74 Trinity Place, New York 6, N.Y.



Close-up of standing seam area

You don't have to allow for expansion or cross joints with

Follansbee Seamless Terne Metal Roofing

Quality metal roofing doesn't have to present any special problems in expansion-contraction allowances . . . not when you specify Follansbee Seamless Terne Metal. Expansion joints are unnecessary, for Terne has such a negligible coefficient of expansion.

Follansbee Seamless Terne can be cut to any length up to fifty feet, and installed without cross seams. The elimination of these unnecessary cross seams not only insures a more serviceable weatherproof roof, it cuts down on labor and installation costs as well, and there's a considerable saving of solder, too.

This durable metal roofing material offers many other advantages, as well. It provides strength without the comparable weight of other quality roofing. The coating won't flake off or peel. Terne has been service-proved over long periods on residential, industrial, and institutional installations. Check your A.I.A.-12-C-1 specification file, and if you don't have Terne Metal Roofing specification and installation details, Follansbee will be glad to send this information to you.

FOLLANSBEE STEEL CORPORATION
GENERAL OFFICES, PITTSBURGH 30, PA.

Polished Blue Sheets and Coils Seamless Terne Roll Roofing Cold Rolled Strip

Sales Offices—New York, Philadelphia, Rochester, Cleveland, Detroit, Fairfield, Conn., Milwaukee. Sales Agents—Chicago, Indianapolis, Kansas City, Nashville, Los Angeles, San Francisco, Seattle; Toronto and Montreal, Canada. Plants—Follansbee, W.Va.

FOLLANSBEE METAL WAREHOUSES
Pittsburgh, Pa. Rochester, N.Y. Fairfield, Conn.

The Boone Clinic in Laurel, Miss., a typical satisfied user of Ready-Power Air Conditioning equipment.

READY-POWER ASKED THESE QUESTIONS OF ITS AIR CONDITIONING USERS

- Has the equipment served your needs?
- Has the over-all performance been satisfactory?
- Has it provided the desired air conditioning comfort?
- Has the continuous temperature and humidity control, as compared to the "on-and-off" system proved advantageous?
- Has the equipment been economical to operate?

AND THE ANSWERS WERE YES

Only in actual use can the operating perfection of an air conditioning system be definitely proved. Ready-Power asked its users for their opinions. Typical comments were, "Am very well pleased with its performance"—"Our cost is about 30% less than other types of equipment"—"Does very excellent job, very economically"—"Trouble free, operates perfectly at all times"—"Costs only $12.00 per month to operate in the summertime."

Ready-Power will be glad to furnish the names and addresses of users to anyone who may be interested.

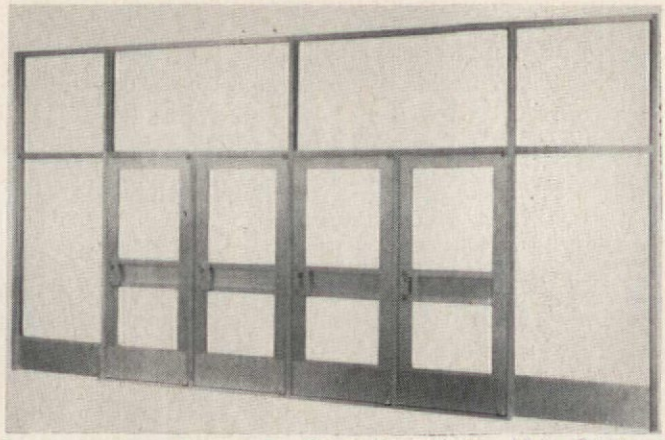
READY-POWER AIR CONDITIONING

SAVES AS IT SERVES

THE READY-POWER CO.

11231 FREUD AVE. • DETROIT 14, MICH.

Manufacturers of Gas and Diesel Engine Driven Generators and Air Conditioning Units; Gas and Diesel Electric Power Units for Industrial Trucks.



U. S. Grant School, Oklahoma City, Okla. Architects: Wright and Selby. Outside view of wide stile Center Panel Doors, showing completely prefabricated entrance unit at the factory before packing for shipment. Furnished and installed by Bissell Builders Supply Co., Oklahoma City, Okla.

ALUMILINE

EXTRUDED ALUMILITED ALUMINUM PRODUCTS

Specified by Leading Architects for:

HOSPITALS • SCHOOLS • RELIGIOUS BUILDINGS • BANKS
STORE FRONTS • OFFICE BUILDINGS • INDUSTRIAL PLANTS
HOUSING PROJECTS • SHOPPING CENTERS

- Extruded Aluminum Store Front Construction
- Extruded Aluminum Factory Assembled Entrance Frames
- Narrow and Wide Stile Extruded Aluminum Doors
- Custom Built Extruded Aluminum Windows

Send for new 1954 Catalogs "Alumiline" Store Front Construction and "Extrud-A-Line" Entrances

see our catalog in ARCHITECTURAL FILE or write for copy

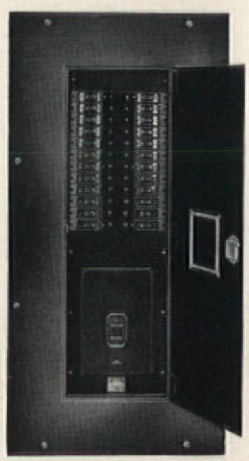
THE ALUMILINE CORPORATION

DUNNELL LANE PAWTUCKET, R. I.

EYE OPENING
electrical equipment
Dependable-Safe-Economical

It's Safe to Specify METROPOLITAN

- Panelboards
- Switchboards
- Service Equipment
- Bus Duct
- Lumi-Tron Stageboards



Type NAB Panelboard

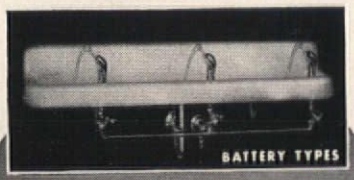
62 Years

METROPOLITAN ELECTRIC MANUFACTURING CO.
General Offices
2252 Steinway Street
Long Island City 5, N. Y.

METROPOLITAN
ESTABLISHED 1892

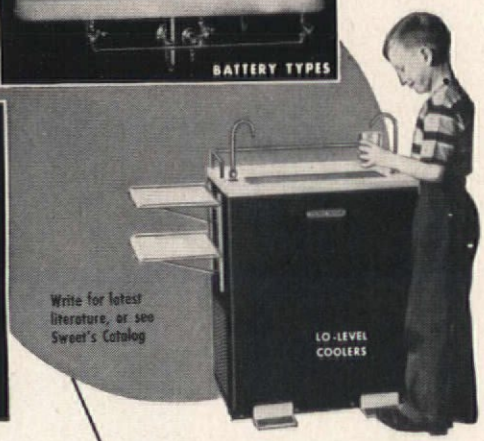
A type for any school need in '54

RECESS



BATTERY TYPES

PEDESTAL



Write for latest literature, or see Sweet's Catalog

LO-LEVEL COOLERS

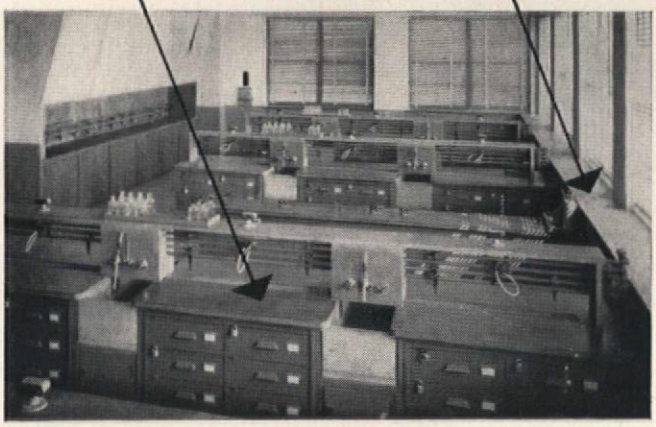
THE HALSEY W. TAYLOR CO., WARREN, OHIO

Halsey Taylor

DRINKING FOUNDAINS

AS-30

FOR CORROSION-RESISTANCE in Window Stools ★ ★ and Tops...



Alberene Soapstone table tops, sinks, shelves, fume hoods and window stools, Ira Remsen Hall, Queens College, Flushing, N. Y. Hoods furred down to opening. Fellheimer & Wagner, Archts.

Architects and Institutions choose

ALBERENE STONE

In the nation's leading schools, colleges, industrial research centers, hospitals — wherever corrosion is a problem — ALBERENE STONE is the choice for window stools (also sills) and laboratory table tops, sinks, fume hoods, and shelving. Because Alberene Stone is a natural material that is highly weather- and corrosion-resistant . . . durable . . . and attractive. And . . . because Alberene Stone is easy to handle — easy to drill and cut.

Our engineers are familiar with the latest developments in all types of laboratory construction. For technical information, write us today.

ALBERENE STONE CORPORATION

419 Fourth Avenue, New York 16, N. Y.

Branches in all Principal Cities

Handiest Location in PITTSBURGH

Hotel Pittsburgher

PITTSBURGH, PA.

Diamond Street below Grant

Right in the heart of the Golden Triangle

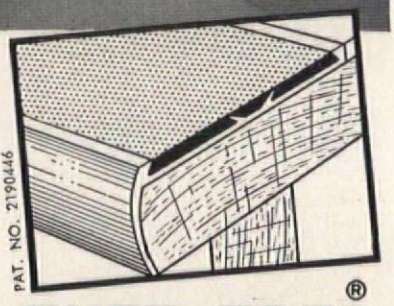
Make the Pittsburgher your stopping place on every trip. Business or pleasure, it's your best address in town . . . easily reached from major highways. 400 outside rooms, radio and TV at no extra charge, bath and circulating ice water. Air conditioned dining rooms, function rooms, and sleeping rooms. Garage service.

a Knott Hotel

ATlantic 1-6970

JOSEPH F. DUDDY, MANAGER

Specify this EXTRA Margin of Safety and Durability for Modern Stairs



TUFF-TRED®

SAFETY STAIR NOSING

In all types of buildings . . . wherever there are stairs . . . you can eliminate slipping hazards, protect and preserve architectural beauty with TUFF-TRED Safety Stair Nosings. Made of polished extruded aluminum. Anti-slip, with semi-resilient filler containing better than 60% abrasive grains. May be used with any resilient floor covering 1/8" thick, or over. Standard length 12 feet; colors—tile red, brown, gray and black. Investigate TUFF-TRED and you'll understand why this stair nosing is used so extensively . . . for the extra margin of safety and durability so important today. *A few choice distributorships and dealerships are available. Write, wire or 'phone . . .*

GOODLOE E. MOORE
INCORPORATED
DANVILLE, ILLINOIS
In Canada: W. D. ELMSLIE, Ltd.
409 Notre Dame St., West, Montreal 11, Quebec

REQUIRED READING

(*Continued from page 48*)

directly, does one get the idea that the architect is an artist who can create a beautiful house, and that this above all else is what an architect is for. Recommended reading — THE HOUSE AND THE ART OF ITS DESIGN by Robert Woods Kennedy.

HOMES OF THE BRAVE is a capsule history of American houses and interiors during the last 60 years. It is very brief — there are only some 50 pages of text divided into twenty chapters. It is brightly and satirically written and aimed at what is sometimes called the "New Yorker public." The jacket says that "this very funny book is really a serious criticism. . . . "Except for some exaggeration, this is a valid statement. The author is basically serious and feels strongly on the subject.

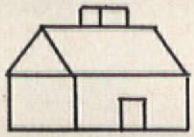
Those who know something of Mr. Gibbings' work in the field of interior design, may be in for some surprises. It appears that he is a devoted follower of Horatio Greenough, Louis Sullivan, Frank Lloyd Wright, Greene and Greene and the principles of "organic architecture." He shares Mr. Wright's vast contempt for everything from overseas — Art Noveau, French "Moderne" of the 1920's, Bauhaus, Corbusier, the International Style, and "less is More." Mr. Gibbings is a greater admirer of the American way, the American woman and the American genius for mechanical comforts. He defends, if he does not exactly admire, Mission furniture because it was American and comfortable and sensible. The climax, for this reviewer at least, is attained when the author express his great admiration for the "ranch house," the vernacular modern which has suceeded Cape Cod and taken over many of its virtues.

Mr. Gibbings is more entertaining when he is attacking than defending. For most readers, his satirical quips aimed at the styles and fads that he doesn't like, will be the best part of the book. In addition to the architectural styles mentioned above, he also takes pot shots at "Aboriginal Modern," "Back to Nature Modern," "Low Life Modern" (the reactionaries' toast is "Bottoms up!"), "Movie Modern," "Dome Sweet Dome," and "Interplanetary Modern."

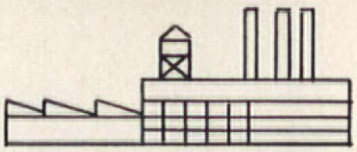
Mary Petty has contributed 24 drawings which constitute a major part of the book. They are uneven in quality, but some of them are the sheerest genius.

(*Continued on page 348*)

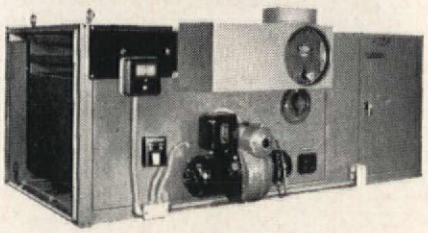
FOR THIS



OR THIS



J-C SUSPENDED HEATING UNIT



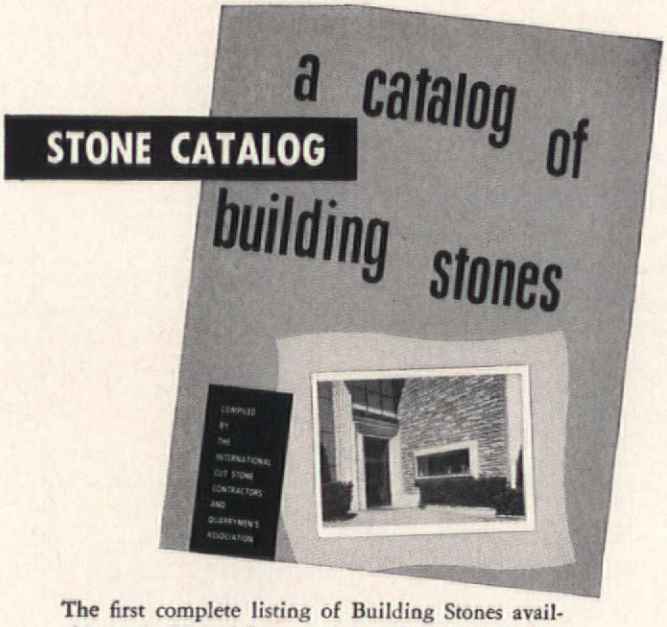
Jackson & Church suspended units are now available in the widest range ever . . . from 80,000 to 1,000,000 Btu output . . . for residential, commercial and industrial installations.

J-C's line of Powerated furnaces also has long been recognized as a leader in heating and ventilating industrial plants.

There's a distributor in your area who can provide complete information on dependable J-C furnaces. Write for his name.

J-C . . . America's Largest and Most Complete Warm Air Heating Line!

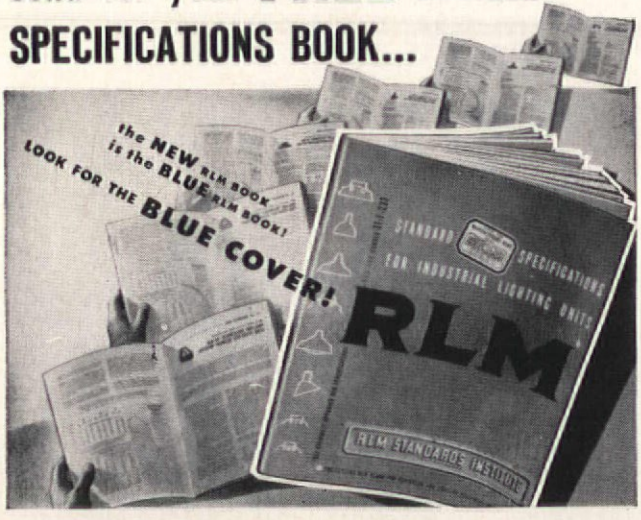
J-C | JACKSON & CHURCH CO.
Saginaw, Michigan



The first complete listing of Building Stones available in the United States and Canada, with full color photographs of every type of stone, detailed descriptions, characteristics and sources. Published by THE STONE COUNCIL and offered to architects, contractors and builders at no cost. Write to

STONE COUNCIL
A DEPARTMENT OF THE INTERNATIONAL
CUT STONE CONTRACTORS' AND QUARRYMEN'S ASSOCIATION
1700 Summer Street, Stamford, Conn.

Send for your FREE RLM SPECIFICATIONS BOOK...



contains RLM quality specifications for 15 new units providing GREATER UPWARD LIGHT *plus* important revisions and additions to the other 68 RLM Industrial Lighting Equipment Specifications.

You are invited to send for your copy of this newly-published reference book on industrial lighting equipment. Now 52 pages, including long-awaited specifications for 48", 72" and 96" Upward Component units, which direct 20% to 30% of light upward. Specifications for all 83 types and sizes of RLM incandescent, fluorescent and mercury units have been brought up-to-date in accordance with latest illuminating engineering developments. Your copy sent without cost or obligation . . . address request on your letterhead to:

RLM STANDARDS INSTITUTE, Suite 827,
326 W. Madison St., Chicago 6, Ill.

2908

RLM STANDARDS INSTITUTE

Ready for Business from Now On

This insurance office, with custom-designed TERRAZZO floor, thrives on traffic. So does TERRAZZO. Marble-hard, with smooth, jointless surface, it's practically permanent.

Easy to clean — and keep clean — the maintenance costs are negligible. Specify low-annual-cost TERRAZZO — for floors, stairs, wainscots, pilasters or walls — and build for permanence. Free AIA Kit upon request. See our catalog in Sweet's.

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION, INC.

404 Sheraton Bldg., 711-14th St., N. W., Washington 5, D. C.

Resin-Free — Marine Spar
Resin-Free — Redwood Paint
Resin-Free — Blond
Resin-Free — Color-Fix #9

Don't Hide the Grain and Beauty of Natural

REDWOOD

Specify

RESIN FREE LIQUID RAW-HIDE

2 In 1 Finish for Redwood, Cedar, Mahogany, Fir, etc.

We have discovered that mild pigmentation helps kill Ultra-Violet light action and will often double the life of a clear exterior finish. Our new 2 In 1 combination Stain and Clear Finish does not hide the grain—consequently to obtain maximum clear finish exterior durability specify three coats of 2 In 1 Finish on new wood.

Actual wood panel and pamphlet sent FREE when requested on your firm letterhead. WRITE:

Linseed Oil Products Co.
1112E South Fremont Avenue
Alhambra, California

Resin-Free — White and Pastel Color Base #7
Resin-Free — Redwood Paint-Gloss White
Resin-Free — Redwood Paint Low Luster
Resin-Free — Gray Color-Preservative #6
Resin-Free — Green Color-Preservative #8
Resin-Free — Quick Dry Linoleum Coating

Resin-Free — Quick Dry Linoleum Coating
Resin-Free — Color-Fix #9
Resin-Free — Redwood Finish
Resin-Free — Redwood Color Wood Stain & Sealer #3

Plan **philippine mahogany**

Write for full color literature on:

1. *Residential Building*
2. *Commercial Building*
3. *Finishing formulas and procedure*

PHILIPPINE MAHOGANY ASSOCIATION, INC.

Dept. A, 111 West Seventh Street • Los Angeles 14, California

PHILIPPINE LUMBER PRODUCERS' ASSOCIATION, INC., Manila

to meet the demand

for a sturdy— neat appearing— quality aluminum covered door

MARMET

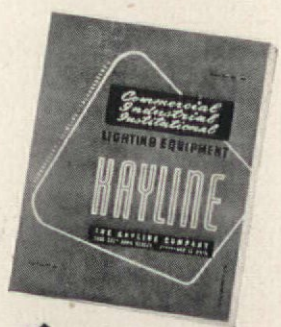
ALUMINUM COVERED **DOORS**

MARMET Anodized Aluminum Covered Doors are high quality and economically priced metal covered wood core doors for commercial and institutional buildings . . . versatile and can be used with metal and wood construction, in conjunction with store fronts or ordinary type buildings . . . stocked in four sizes . . . certain custom type doors available — ask our engineering department for details.

Write for catalog 54-4 for complete details.

MARMET *Corporation* WAUSAU WISCONSIN

this handy **WORKING TOOL** *FREE!*



Kayline's 74-page Catalog No. 53 is a handy working tool for all commercial and industrial lighting requirements. Gives information and charts on footcandles of light, light patterns, installation suggestions and other needed data. Send for it today!

THE **KAYLINE** COMPANY
2480 East 22nd Street
Cleveland 15, Ohio

the one source lighting line

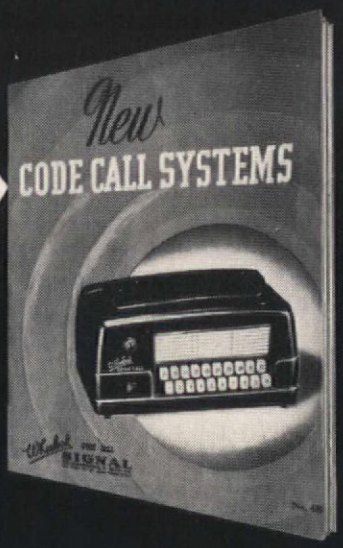
NOTICE TO ARCHITECTS

You may have a great deal of lighting data in your files, but you may be missing the "best help" you could possibly have on modern lighting if you do not have a copy of Kayline Catalog No. 53 for yourself and your specification writer. Send request on postcard or attach this advertisement to your letterhead.

WHEELOCK CODE CALL

for immediate communication

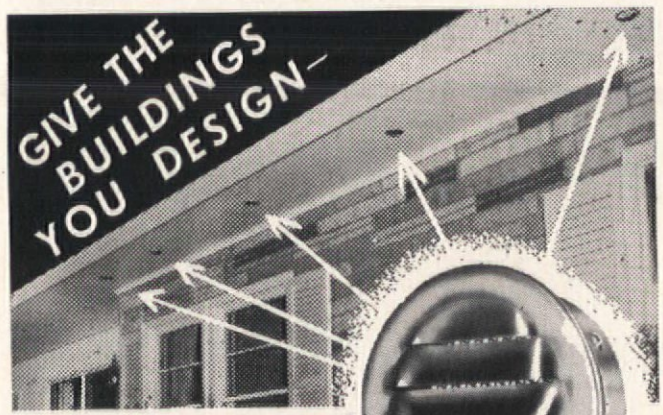
Descriptive Bulletin 4B-7 available on request. Write for your copy now to Signal Engineering & Mfg. Co., Long Branch, New Jersey.



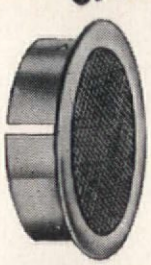
The busy switchboard operator just presses the button; a numerical code call sounds off throughout the building and the person being paged responds via the nearest telephone. The cycle is as simple as that. Also learn how easy it is to install a Wheelock Code Call System with any desired combination of chimes, bells, horns and other signalling devices.

Engineering Representatives in Principal Cities

Wheelock CODE CALL SIGNAL
ENGINEERING & MFG. CO.
LONG BRANCH, NEW JERSEY



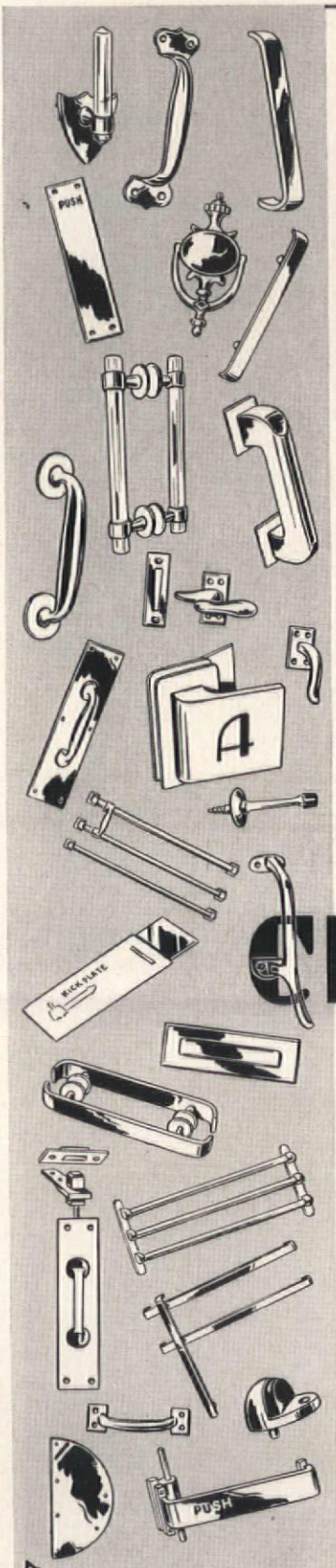
LIFETIME PROTECTION AGAINST THE MENACE OF MOISTURE!



Ventilate "danger spots" at soffits, eaves, gables, sidewalls, and unexcavated areas, and you put an end to the destructive dangers of condensation . . . paint blisters, rot, accumulated moisture. Midget Louvers are all-aluminum ventilating units that assure adequate air circulation always. Easily and economically installed, they stay on the job forever without attention. Made in 7 sizes (1" to 6" diameter), and 2 types (with and without vane deflectors). Both are screened to keep out insects.

Write for complete file data

MIDGET LOUVER CO.
6 WALL ST., NORWALK, CONN.



RIGHT DOWN THE LINE

Specify

CIPCO

ARCHITECTURAL HARDWARE

Manufacturers of fine Hardware for over 25 years

CIPCO CORPORATION

2200 COLE STREET
ST. LOUIS 6, MISSOURI

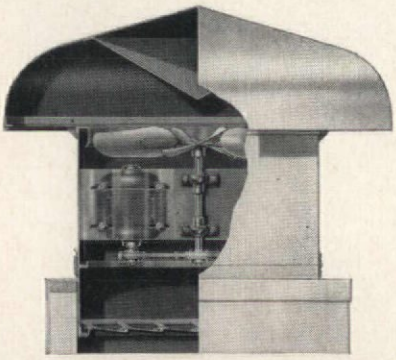
VENTILATING PROBLEM?

LET BURT ENGINEERS SOLVE IT FOR YOU!

Burt engineers are specialists in air movement. They should be—with over half a century of practical experience in designing, engineering and manufacturing ventilators for the alphabet—from atomic bomb plants to zoos. . . . After the slide rule, Burt has the invaluable asset of thousands of successful ventilator case histories to check and prove or disprove the paper work.

BURT'S LINE IS COMPLETE

Burt manufactures all types, all sizes of ventilators. Burt is not interested in selling a specific type because Burt makes them all. That's why Burt's unbiased recommendation is real assurance of satisfaction. Write for our general catalog.



FAN & GRAVITY VENTILATORS • LOUVERS
SHEET METAL SPECIALTIES

The Burt Mfg. Co.

48 East South Street
AKRON 11, OHIO

Member Power Fan Mfr's Ass'n

REQUIRED READING

(Continued from page 344)

RECENT BULLETINS PUBLISHED

The Volume of Residential Construction, 1189–1950, Technical Paper 9. By David M. Blank. National Bureau of Economic Research, Inc. (1819 Broadway, New York) 1954. $1.50

This paper is derived from a joint study of capital formation and financing in residential real estate by the Institute for Urban Land Use and Housing Studies, Columbia University and the National Bureau of Economic Research Inc. The study is part of a large investigation of trends and prospects in capital formation and financing made possible by a grant from the Life Insurance Association of America.

Technical Bulletin No. 22. Conservation and Rehabilitation of Major Shopping Districts. By Richard Lawrence Nelson and Frederick T. Aschman. Urban Land Institute (1737 K St., N. W., Washington, D. C.) 1954. $5.00

The authors outline and explain their approach for an attack on the forces that are causing the disintegration of major satellite shopping districts.

American Planning and Civic Annual. Ed. by Harlean James. American Planning and Civic Assoc. (901 Union Trust Bldg., Washington, D. C.) 1953

A record of recent civic advance in the fields of planning, parks, housing, neighborhood improvement and conservation of natural resources.

Speculations of Town Planning. By Paul Kriesis. G. S. Chistou & Son (7 Gambetta St., Athens, Greece) 1953

This work illustrates the close connection between planning proposals, speculations, the meanings attached to metaphysical concepts of the planning theorists. In the progress of this analysis the importance of the political factor emerges.

Research Conference Report No. 6 — Porcelain Enamel in the Building Industry — November 12 and 13, 1953. Sponsored by The Building Research Advisory Board and The Porcelain Enamel Institute. Conducted by The Building Research Institute (2101 Constitution Ave., Washington, D. C.) 1954

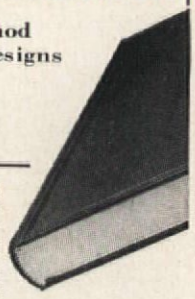
Design Research Report No. 1. An Investigation of Special Problems Involving Small-Dimensioned Douglas Fir and West-Coast Hemlock. School of Architecture and Allied Arts, University of Oregon (Eugene, Ore.) 1953

The Madison Central Business Area. By Richard U. Ratcliff. University of Wisconsin (Madison, Wis.) 1953. 8½ by 11 in., 69 pp. $1.15

Proceedings of the 1953 ACRL Building Plans Institute with a Special Bibliography. Ed. by Donald C. Davidson. Assoc. of College and Reference Libraries (University of Ill. Library, Chicago) 1953. $2.25

How to determine unit cost of house construction

—a simplified method applying to all designs and local price variations



THIS book takes up all phases of building a house earthwork, masonry, carpentry, plastering, plumbing, etc. Tells how to determine costs for every operation; includes data on quantity of material and number of labor hours needed; gives worked-out examples of typical unit costs. As helpful background, it includes structural details and methods of operation for many aspects of home construction. Compares all methods of estimating; gives pointers on the cost summary sheet; shows how to figure exact costs of building a house in any price range, location, or size. Gives full coverage to heating with forced air, one-pipe steam, and one-pipe forced hot water.

Just Published!

HOUSE CONSTRUCTION COSTS

By G. UNDERWOOD

302 pages, 6 x 9, 63 illus., $6.25

BASED on the author's 39 years of house-building experience, this simplified technique for obtaining unit costs is supplemented by data and general background information on the technical operations, with emphasis on cost factors. The book contains an original table showing the proportions of labor to material costs, and a model of a simple-estimate sheet. Gives you a quick, accurate method for estimating the exact unit costs of building a house in any price range, location, or size.

Another valuable building book

The Business of Home Building

A Manual for Contractors

Tells how to make a profit with minimum risk; how to minimize business errors and increase your chances of success. Gives tips on estimating operating costs, accounting, selling, and financing. Points out legal pitfalls. Discusses purchase and development of land, figuring a budget, etc., etc. By B. K. JOHNSTONE and C. E. JOERN. 289 pages, 6 x 9, $4.50.

Tells how to estimate unit costs of:

- **excavating**
- **stair building**
- **sash balances**
- **lighting, painting, and papering**
- **front stone veneer, etc.**

SEE THESE BOOKS 10 DAYS FREE

McGraw-Hill Book Co., Inc.
330 W. 42nd St.
New York 18, N. Y.

Send me book(s) checked below for 10 days' examination on approval. In 10 days I will remit for book(s) I keep, plus few cents for delivery, and return unwanted book(s) postpaid. (We pay for delivery if you remit with this coupon; same return privilege.)

☐ Underwood — House Construction Costs — $6.25
☐ Johnstone and Joern — The Business of Home Building — $4.50

Name .....
Address .....
City ..... Zone .... State .....
Company .....
Position ARR-14

This offer applies to U. S. only.

FOR DUMB WAITERS
consult

MATOT

SINCE 1888

Designers and Developers
of Electrical and Hand-
operated Dumb Waiters for

HOTELS • RESTAURANTS
INSTITUTIONS • CLUBS
WAREHOUSES • FACTORIES

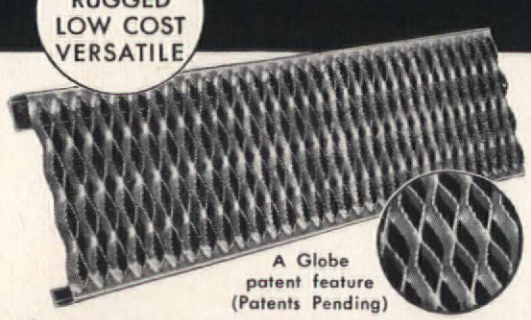
Complete data in Sweet's Catalog
or write

D. A. MATOT, INC.
1533 West Altgeld Street • Chicago 14, Illinois

Safety GRIP-STRUT

gives Maximum Strength
with Minimum Weight

NON-SKID
RUGGED
LOW COST
VERSATILE



A Globe
patent feature
(Patents Pending)

Not welded, not riveted, not expanded, all one piece of material, gives a non-skid surface in *all* directions, a diamond shaped pattern with open space area in excess of 75% of surface, easily cleaned, sanitary. Simple to install, ideal for on-the-job fabricating, replaces existing grating with no supporting structural changes necessary. Strong yet light in weight. Ideal for stair treads, work platforms, catwalks, flooring, running board steps, in fact for any purpose where safe flooring is a factor. Available in steel or aluminum. Write for new catalog, showing new low prices, methods of application, typical installations and list of nationally known users.

Distributors in all principal cities.

GRIP-STRUT

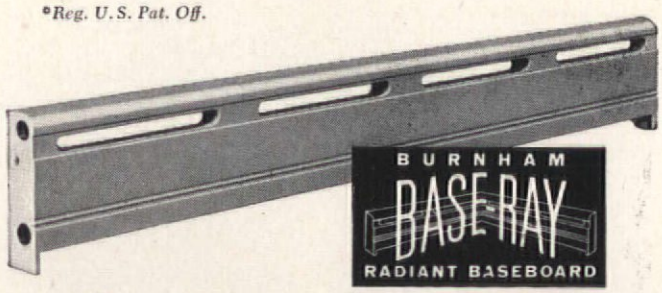
GRIP-STRUT division
THE GLOBE COMPANY
Manufacturers since 1914
4000 S. Princeton Ave. • Chicago 9, Ill.

A typical Burnham BASE-RAY* Radiant Baseboard installation. Note how BASE-RAY complements the decorative scheme.

BASE-RAY IS THE KEY TO THIS KIND OF BEAUTY!

Yes, every year new thousands of installations underline client's preference for Burnham BASE-RAY as the perfect way to enjoy the Magic of Radiant Hot Water Heat. This confidence is well placed and you should take advantage of it. BASE-RAY gives maximum personal comfort, blankets outside walls and windows with a shield of heated air. BASE-RAY's rugged *cast-iron* construction means lifetime economy, a fact the client is quick to appreciate. Because of its low sweeping lines, BASE-RAY fits inconspicuously into any room, saves space, promotes smart interior decor. To top it off, BASE-RAY is fully water-backed; no false fronts or grilles. It delivers true radiant heat. These, plus many other advantages, have pleased thousands of homeowners. Why don't *you* investigate Burnham BASE-RAY's possibilities. Mail Coupon today!

*Reg. U. S. Pat. Off.



Burnham Corporation

BOILER DIVISION **IRVINGTON, NEW YORK**

FIRST IN THE MANUFACTURE OF BASEBOARD HEATING

BURNHAM BASE-RAY WEARS LIKE IRON
. . . BECAUSE IT'S MADE OF IRON

Burnham Corporation AR-54
Irvington, New York
Please give me full data, including 6-page illustrated folder on BASE-RAY.

Name.....

Address.....

City.....State.....

AMAZING! the Time and Money Saved WITH *Spee-Dee* WHITEPRINT OUTFITS

Make Exact Duplicates in as little as One Minute at less than 2¢ sq. ft.

Inexpensive and simplest of all print making equipment! Thousands in daily use. Enables anyone to make accurate, positive whiteprints from translucent originals. Saves up to 80% of commercial blueprint costs—quickly pays for itself! Makes photocopies, too. Just plug in. Uses diazo (moist or ammonia dry) process. Complete portable *Spee-Dee* outfits in 12″ x 18″, 18″ x 24″ and 24″ x 36″ models. Prices start at $55.00. Also a full line of 42″ width capacity volume production whiteprinters at moderate prices.

10 DAY FREE TRIAL

Send today for Free Spee-Dee Brochure

PECK & HARVEY

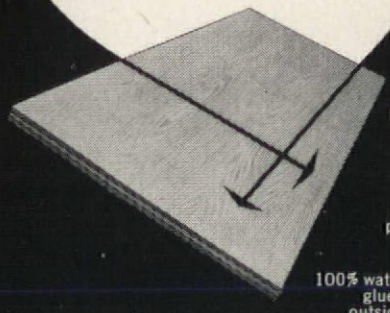
Mfrs. of Whiteprint, Blueprint & Photocopy Equipment

5634 NORTH WESTERN AVE., CHICAGO 45, ILLINOIS

Design with DFPA Grade-Trademarked

FIR PLYWOOD

1 Does More Jobs—Better
2 Gives Two-Way Strength
3 Lower In-Place Cost
4 Appearance Value
5 Tested Quality



SPECIFY BY THESE DFPA GRADEMARKS

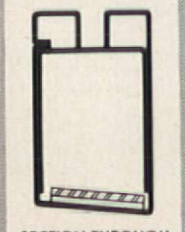
For roof, wall sheathing; sub-flooring — PLYSCORD

For built-ins, paneling, etc. — PLYPANEL

100% waterproof glue for all outside uses — EXT-DFPA®

See Sweet's File, Architectural, or
Write Douglas Fir Plywood Assoc., Tacoma 2, Wn., for 1954 Catalog

for modern style it's



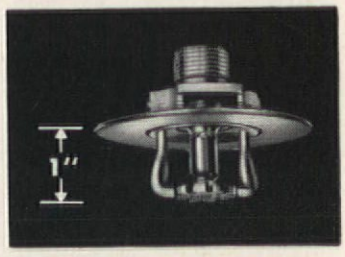
SECTION THROUGH NARROW STILE

Overline®

In hollow *steel* or *stainless steel,* new Overline Entrance Door features slender lines, ruggedness, moderate cost. Write us today for our Folder "O.D."

OVERLY MANUFACTURING COMPANY
Greensburg, Pennsylvania
Los Angeles 39, California

The BEAUTY of Grinnell *Flush-Type* Ceiling Sprinklers



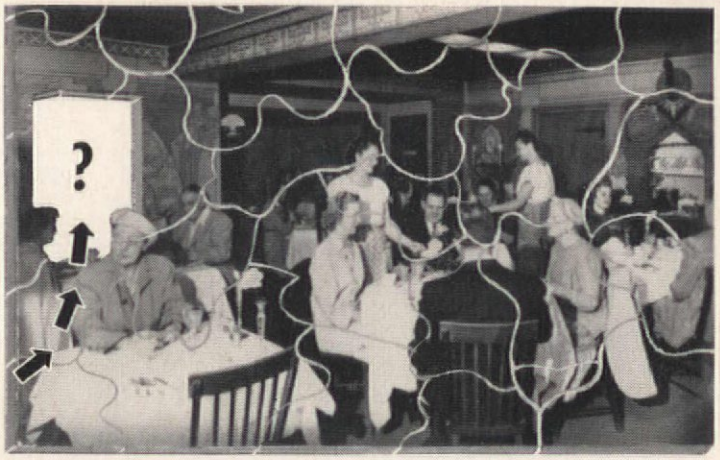
By planning your fire protection in the blueprint stage, you not only get the most efficient protection, but a system that *harmonizes* with interiors.

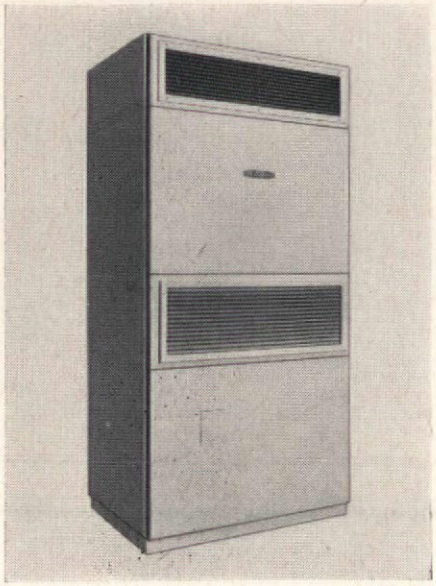
Because the Grinnell Ceiling Sprinkler protrudes only 1 inch below the ceiling and is available in a variety of finishes and colors, it is the ideal sprinkler for offices, shops, stores, restaurants, lounges, country clubs. It gives reliable, unobtrusive fire protection.

Grinnell Company, Inc., Providence, Rhode Island —manufacturing, engineering and installation of automatic sprinklers since 1878.

GRINNELL
FIRE PROTECTION SYSTEMS

Is This YOUR Puzzle?





Are you trying to decide what kind of air conditioner will best fit the needs of your clients?

Then get details on FRICK unit conditioners! Built in sizes of 3, 5, and 7½ horsepower; no finer units have ever been made.

Check these features:

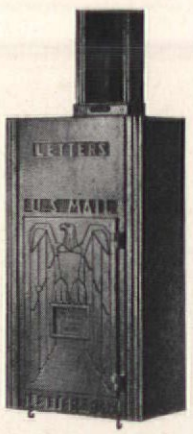
- √ *Greater net cooling*
- √ *Low air velocities*
- √ *Silent operation*
- √ *Water-cooled motors*
- √ *Insulated condensers*
- √ *Heating coils if wanted*

See your Frick Distributor for the full facts or write now for Bulletin 522.

See our pages in Sweets Architectural & Industrial Construction Files.

DEPENDABLE REFRIGERATION SINCE 1882
FRICK CO.
WAYNESBORO, PENNA. U.S.A.

U. S. MAIL CHUTES & BOXES



Design No. 4770

CUTLER

Cutler Mail Chutes are made in a factory expressly designed and constructed for one product—The Cutler Mailing System.

ESTABLISHED 1883
Cutler Mail Chute Co
ROCHESTER 7, N.Y.

ARCHITECTS...

Get this free booklet filled with ideas for MODERN WASHROOMS

This booklet contains color photographs of many actual American-Olean Tile installations that provide easy sanitation, low maintenance costs, and long life. In it you will find many useful ideas showing how tile can be used to advantage in washrooms and in other areas in industrial buildings. Write for your free copy today.

Please send my free copy of Booklet 300.

Name.....

Title.....

Address.....

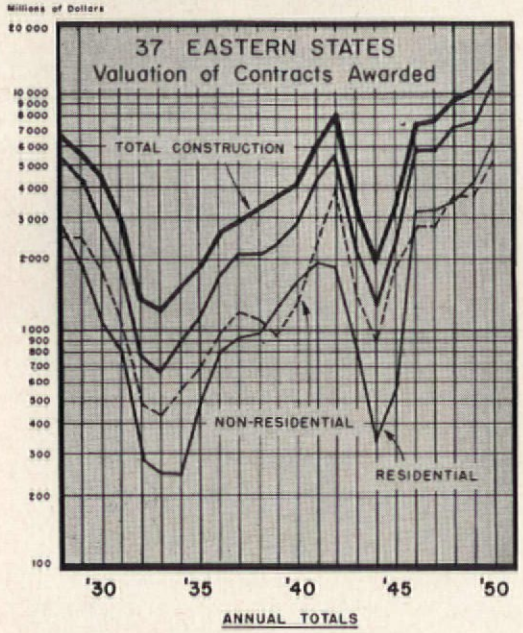
City.....Zone.....State.....

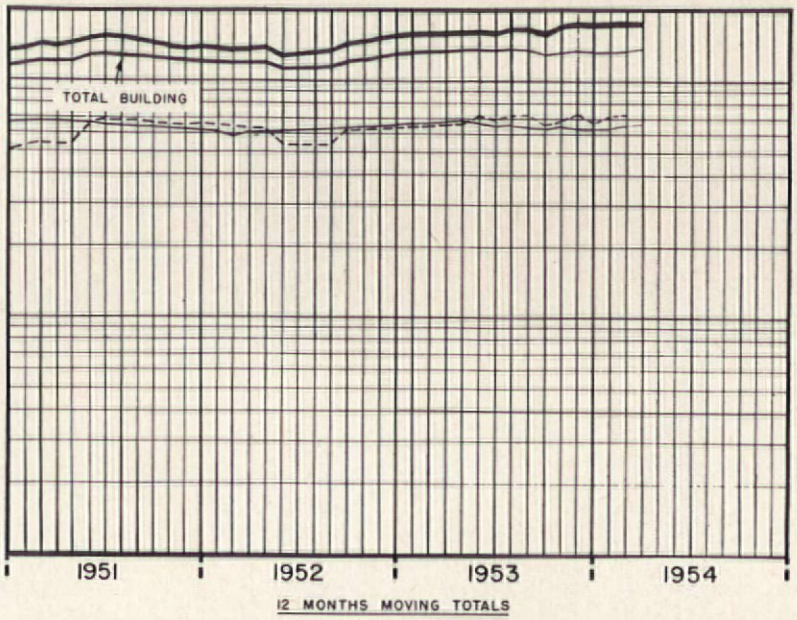
American-Olean Tile Company

1016 Kenilworth Ave., Lansdale, Pennsylvania

Member, Tile Council of America

CURRENT TRENDS IN CONSTRUCTION



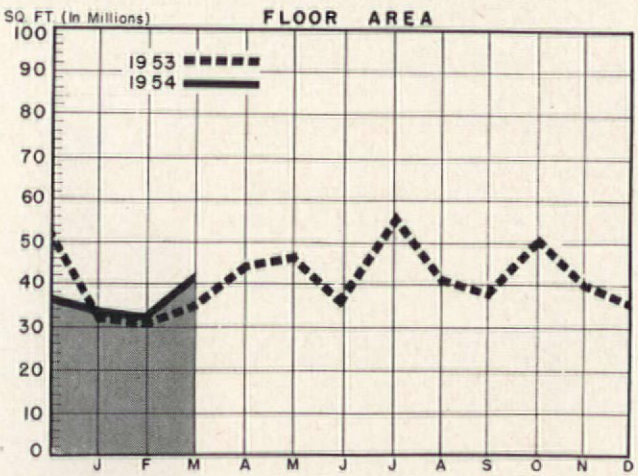


Charts by Dodge Statistical Research Service

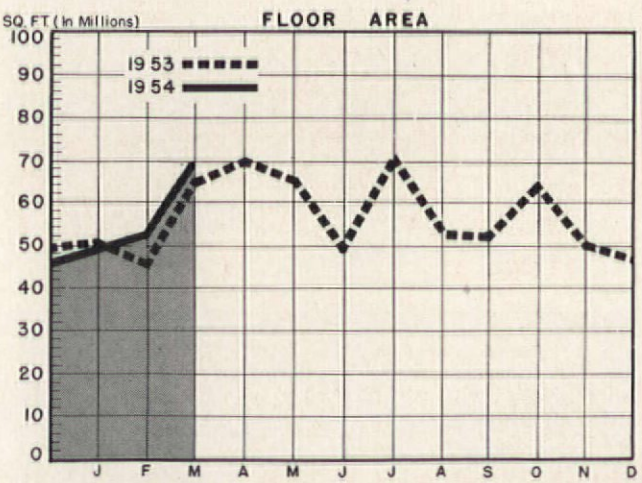
FIRST QUARTER SMASHES ALL RECORDS

THE PROPHETS OF DOOM will have to look elsewhere. In the first quarter of 1954, construction contract awards reached the highest level of any first quarter in the 63-year history of the F. W. Dodge Corporation. Total valuation of contracts awarded in the 37 eastern states as reported by Dodge was $3,900,764,000, an increase of 13 per cent over first quarter 1953, which was only a fraction of a percentage point behind the previous record first quarter in 1951. Further, first quarter 1954 set a new record in each of the basic Dodge categories — nonresidential, residential, and public works and utilities — and in each of the 12 basic statistical changes on which Dodge makes monthly reports to its statistical clients. The new boom had established itself on month-by-month highs — a record January (ARCHITECTURAL RECORD, March 1954, page 346), a record February (April 1954, page 350) and a record March — $1.5 billion in contracts awarded, an increase over March 1953 of 13 per cent overall, 18 per cent in the nonresidential category, 12 per cent residential, 12 per cent engineering.

NONRESIDENTIAL BUILDING (37 EASTERN STATES)



RESIDENTIAL BUILDING (37 EASTERN STATES)



STORE BUILDINGS*—SELECTED YEARS

F. W. Dodge Corporation Contracts Awarded—Floor Area (thousands of sq ft)

37 Eastern States

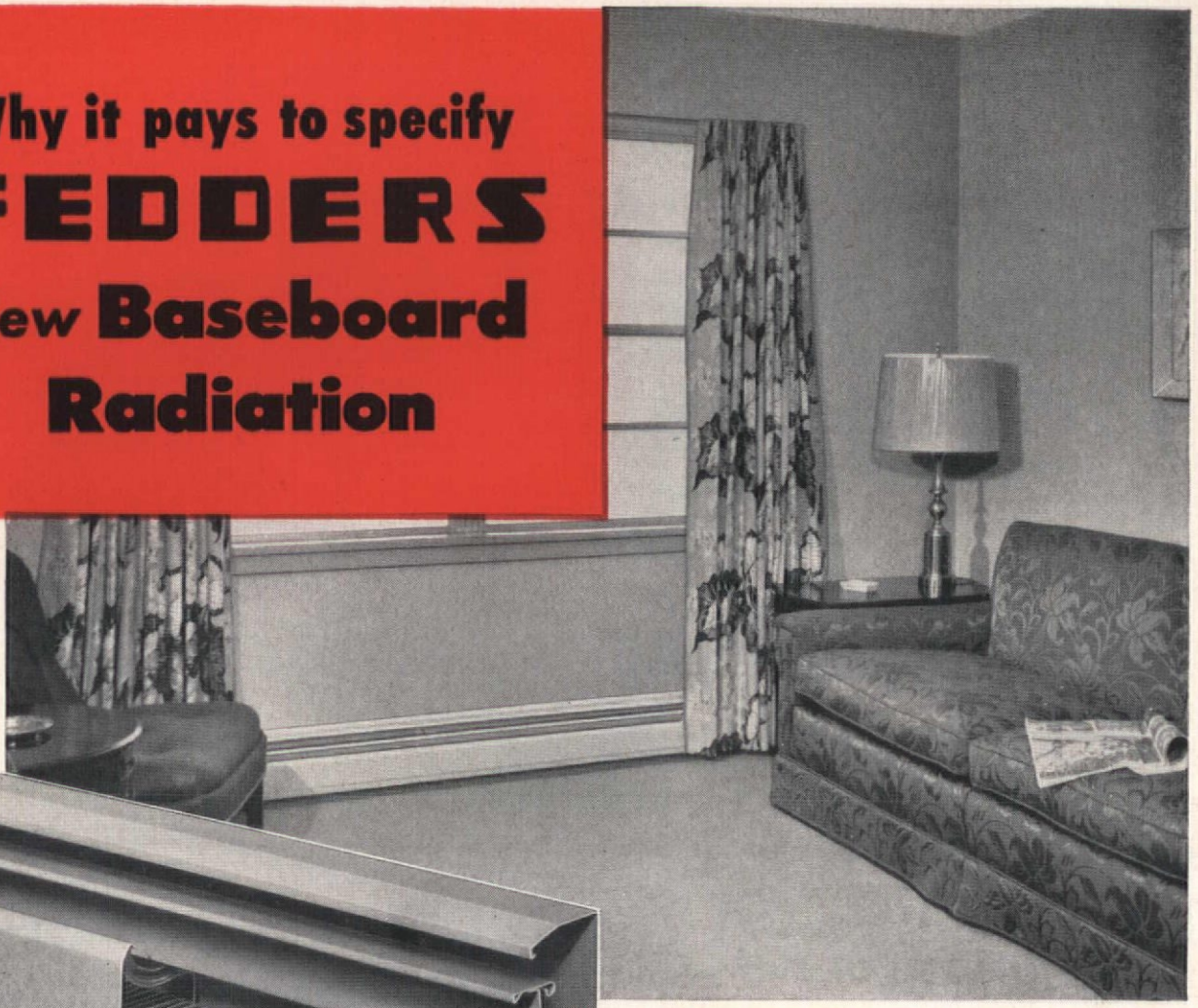
Year	Annual Total	Monthly Total	Year	Annual Total	Monthly Total
1929	39,731	3311	1950	59,116	4926
1935	11,281	940	1951	34,534	2877
1943	1,583	132	1952	33,268	2772
1947	48,111	4009	1953	58,380	4865

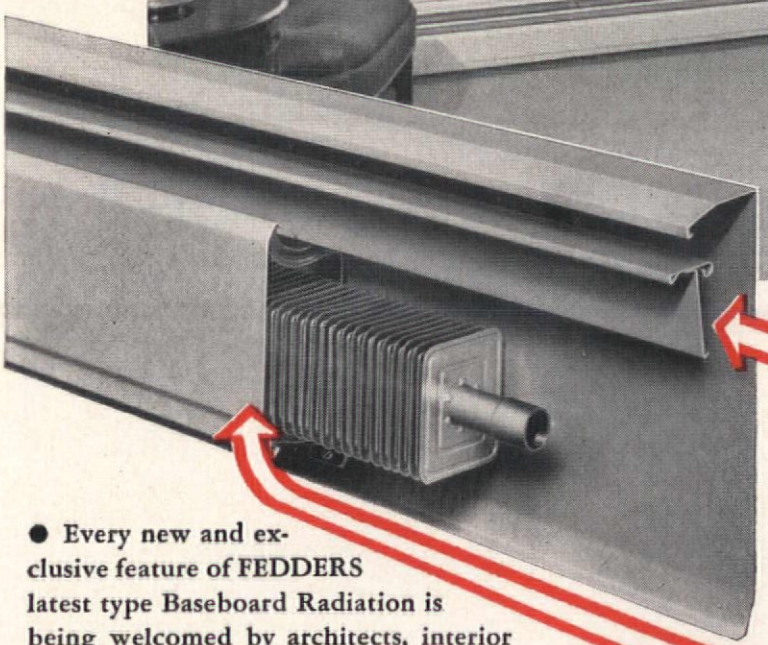
Monthly Totals

1953			1954
Jan.	3063	July 10,643	Jan. 4086
Feb.	3048	Aug. 4369	Feb. 3999
Mar.	3952	Sept. 5302	Mar. 4422
Apr.	4602	Oct. 6656	3-months—12,507
May	6063	Nov. 3359	
June	4239	Dec. 3084	

*Suburban branch department stores are the subject of RECORD Building Types Study No. 210 (pp. 178–197)

Why it pays to specify FEDDERS New Baseboard Radiation





● Every new and exclusive feature of FEDDERS latest type Baseboard Radiation is being welcomed by architects, interior decorators, contractors and owners for new and remodeling work. Provides convected and radiant warmth at ankle height all around the room. Finned heating element gives quick response to thermostat.

DAMPERS STANDARD EQUIPMENT

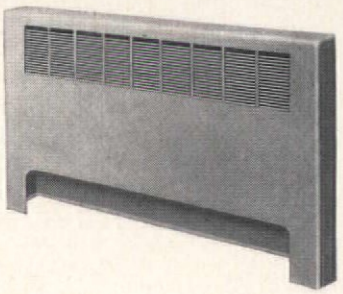
Full length deflector is also an adjustable damper to give individual finger tip control. Spare rooms can be closed off, and bedrooms kept at lower temperature with lower fuel cost.

QUICK SNAP-ON INSTALLATION

Covers, corners, joint strips, element and supports come in complete package. No drilling, no mitering, no screws, no tools, no brackets to assemble . . . saves hours. One piece back and top eliminates leakage of heated air. Smooth cover surfaces are free of ribs and grilles. Active but gentle air circulation,— no hot blasts to stir up dust.

NEW FEDDERS CONVECTOR-RADIATORS with Sliding Front

Quick, easy installation . . . smooth front panels, no screws. Complete line of sizes for free standing, recessed and picture window installations. Write Dept. AR for Catalog.



Also manufacturers of Unit Heaters, Wall Radiation and other Heat Transfer Products. Write Dept. AR for Catalog.

FEDDERS-QUIGAN CORPORATION

Heating Division TRENTON 7, N. J.

INDEX TO ADVERTISING

Abelite Lighting Division 340
A-LC Accurate Metal Weatherstrip 326
Active Tool & Manufacturing Company 96
A-IC-LC Adam, Frank Electric Co 57
A Adams & Westlake Co 209
Advance Transformer Co 117
Aerofin Corporation 102
A-LC Aetna Steel Products Corporation 105
Air Devices, Inc 124
A-IC Alan Wood Steel Company 264
A Alberene Stone Corp. of Virginia 343
A Allen, W. D. Mfg. Co 250
A-IC-LC Allied Chemical & Dye Corporation 82
Aloe, A. S. Co 333
A Alumiline Corporation 342
A-LC Aluminum Window Mfrs. Association 341
American Bitumuls & Asphalt Company 38
A-IC American Blower Co 257
A American Brass Company 65
American Gas Association 70
A-LC American Hardware Corporation 218-219
A American-Olean Tile Company 351
A-LC American Radiator & Standard Sanitary Corp. (Plumbing & Radiator Division) 115-297
A-LC American Zinc Institute 270
Amplex Corporation 274
A-LC Andersen Corp 88-89-90-91
Architectural Record 258-259
A-IC Arketex Ceramic Corp 289
A-IC-LC Armstrong Cork Company 80-81
A Art Metal Company 323
Associated Manufacturers of Lathing and Plastering Materials 40-41
Auth Electric Company, Inc 87
Avoncraft Division of Avondale Marine Ways, Inc 303

A-IC Barber-Colman Company 254
A-IC-LC Barrett Division 82
A-IC Bayley, William Company 72
A-LC Bell & Gossett Company 95
A-IC Bethlehem Steel Company 78-279
Bituminous Coal Institute 281
A-IC-LC Blue Ridge Sales Division 17
Books 331-348
A Briggs Manufacturing Company 127
A-LC Bruce, E. L. Co 235
A Brunswick-Balke-Collender Co 320
Buffalo Forge Company 278
Burnham Corporation 349
A Burson Clip System Inc 32
A-IC Burt Manufacturing Company 348
A Byers, A. M. Company 4
A-IC Byrne Doors, Inc 48

A-LC California Redwood Association 52
A-IC-LC Carrier Corp 60
Cast Iron Soil Pipe Institute 231
A-IC-LC Ceco Steel Products Corporation 228-229
A-IC-LC Celotex Corporation 86
A Century Lighting, Inc 263
A-IC-LC Certain-teed Products Corp 301
A Chase Brass & Copper 77
Cipco Corporation 347
A-IC Cleaver-Brooks Company, Boiler Division 83
Clow, James B. & Sons 306
A Concrete Reinforcing Steel Institute 94
A Congoleum-Nairn, Inc 271
A Connor Engineering Corp 338
Construction News 335
A Corning Glass Works 311
C-O-Two 106
Corrulux Division 109
LC Crane Co 291
Crucible Steel Company of America 51
A Curtis Companies Service Bureau 247
A Curtis Refrigerating Machine Division .. 50
A Cutler Mail Chute Co 351

A Day-Brite Lighting, Inc 232-233
A-LC Detroit Steel Products Co 235
A Dicks-Pontius Company 71
A Dodge Cork Company, Inc 339
Dodge Reports 92-335
A Douglas Fir Plywood Assoc 350
Dow Corning Corporation 85
A Dunham, C. A. Company 305
A Duriron Company, Inc 74

Faber, A. W.-Castell Pencil Co., Inc 300
A-IC Facing Tile Institute 113
A Fedders-Quigan Corp 353
Federal Seaboard Terra Cotta Corp 325
A-LC Fiat Metal Manufacturing Co 230
A Fleet of America, Inc 252
A-IC-LC Flynn, Michael Mfg. Co 8
A-LC Follansbee Steel Corporation 341
A Formica Co 49
A-IC Frick Company 351

A-LC Gate City Sash & Door Co 293
A General Bronze Corporation 129
A-IC General Electric Co., Apparatus 283
General Electric Co., Distribution 269
A-LC General Electric Co., Home Bureau 44-45
General Time Corporation 332
A Glide Windows, Inc 21
Globe Company 349
A Goodyear Flooring Dept 27
A Grant, Pulley & Hardware Co 328
A-IC Grinnell Company 350
Guth, Edwin F. Company 63

A Haertel, W. J. & Co 308
A Hall-Mack Company 79
Halstead & Mitchell 302
A Hansson, Elof, Inc 313
A Hardwood Products Corporation 288
A Haws Drinking Faucet Co 324
A-IC Hendrick Manufacturing Co 337
A Hillyard Chemical Co 54
Holophane Company, Inc 25
A-LC-IC Hope's Windows, Inc 280
A Horn Division 320
Hotel Pittsburgher 343
A Hunter-Douglas Corp 337
A-LC Hunter Fan & Ventilating Co 309

A-IC Ilg Electric Ventilating Co 31
Infra Insulation, Inc 13
A-LC Inland Steel Products Company 356
A Insulite Division 216-217
International Business Machines 67
A International Cut Stone Contractors & Quarrymen's Association 345
A-IC International Steel Company 222
Ironite Company 234

A-LC Jackson & Church Co 344
A Jamison Cold Storage Door Company .. 37
A-IC Johns-Manville 98
Jones Metal Products Co 340
A-IC Josam Manufacturing Co 58
A Just Manufacturing Co 7

A Kawneer Co 68-69
A Kayline Company 346
A Kennecott Copper Corp 77
A-LC Kentile, Inc 119
Kewaunee Mfg. Co 310
Kirlin Company 123
Kohler Co 333
A-LC Kwikset Sales & Service Company 1

A LCN Closers, Inc 238-239
Larsen Products Corp 340
Lawler Automatic Controls, Inc 334
A-IC-LC Libbey-Owens-Ford Glass Co. 17-109-240-241
Linseed Oil Products Co 345
A-LC Lockwood Hardware Mfg. Co 62
A-LC Louisville Cement Company 61
A Loxit Systems, Inc 284
A-LC Ludman Corporation 34-35
A-IC Luminous Ceilings Inc 137

A-IC Macomber, Incorporated 112
A-IC Mahon, R. C. Company 47
A Maple Flooring Manufacturers Association 299
A Marble Institute of America 330
A-IC Marlo Coil Company 312
A Marmet Corporation 346
A-IC Master Builders Co ..... 2nd Cover
A Mastic Tile Corporation of America 329
A Matot, D. A., Inc 349
McQuay, Inc 120-121
A Medart, Fred Products, Inc 111
Medusa Portland Cement Co 110
Metropolitan Electric Mfg. Co 342
A Michaels Art Bronze Co., Inc 322
Midget Louver Co 347
A Miller Company 336
A Minnesota & Ontario Paper Company 216-217
A-LC Miracle Adhesives Corp 314
A-IC Mississippi Glass Company 66
A-IC Modine Manufacturing Company 220-221
Moore, Goodloe E., Inc 344
A Moore, P. O., Inc 338
Morrison Steel Products, Inc. (Roly-Door Div.) 226
A-LC Mueller Brass Co 53
A Multi Electric Mfg. Co., Inc 333

A-IC-LC Natco Corporation 295
National Clay Pipe Mfrs., Inc 116
National Electrical Contractors Association 304
A National Terrazzo & Mosaic Assoc., Inc 345
National Tube Division 122
A Neo-Ray Products Inc 319
A Nesbitt, John J., Inc 39
A New Castle Products 103
A-IC Norton Company 30

Ohio Hydrate & Supply Co 338
A Onan, D. W. & Sons, Inc 36
Orr & Sembower, Inc 107
A Otis Elevator Co 99
A-IC-LC Overhead Door Corporation 114
A Overly Manufacturing Company 75-350
A-IC Owens-Illinois Glass Block Division 223

A-LC Paine Lumber Company LTD 118
A Patterson-Kelly Co., Inc 256
Peck & Harvey 350
Philippine Mahogany Association 346
A-LC Pittsburgh Plate Glass Co ... 56-255-273-294

MANUFACTURERS' PRE-FILED CATALOG

Symbols "A", "IC", and "LC" indicate that catalogs of firms so marked are available in Sweet's Files as follows: (A) Architecture File, 1954 (IC) Industrial Construction File, 1954 (LC) Light Construction File, 1954

A Pittsburgh Plate Glass Co., Paint Division 255
A Pittsburgh Reflector Company 316
A-LC Pittsburgh Steel Products Company .. 248-249
A-IC Plasteel Products Corporation 212
A Portland Cement Assoc 64
A Powers Regulator Co 18-19-33
A Pratt & Lambert, Inc 210

RLM Standards Institute 345
Radio Corporation of America 260
A-IC Ramset Fasteners, Inc 318
A-IC-LC Raynor Manufacturing Co 331
Ready-Power Co 342
A Reflectal Corporation 104
A Republic Steel Corporation 100-101-265
A-IC-LC Revere Copper & Brass, Inc 276
A-IC-LC Reynolds Metals Co 298
Richmond Radiator Company 287
A Rixson, Oscar C. Company 290
A-IC Robertson, H. H. Company 242-243
A-LC Rolscreen Company 43
A-IC-LC Ruberoid Co 138
A-IC Russell-Burdsall & Ward Bolt & Nut Co .. 275
A-LC Russell, F. C. Company 307
A-LC Russell & Erwin Division 218-219
A-IC Rust-Oleum Corporation 59

St. Paul & Tacoma Lumber Co 332
Salvajor Company 336
A Schacht Associates Inc 285
A Schieber Sales Co 337
A-IC Scott Paper Company 292
A Seaporcel Metals, Inc 341
A Servel Inc 251
A Sherwin-Williams 128
Signal Engineering and Mfg. Co 347
A-IC Sloan Valve Company ..... 4th Cover
A Smith, H. B. Co., Inc ..... 3rd Cover
A Smithcraft Lighting Division 334
A-IC-LC Sonoco Products Company 286
A-LC Southern Sales & Supply Co 97
Square D Company 2-3
A-LC-IC Standard Dry Wall Products 126
A Stanley Works 93
A Steel & Tubes Division 265
A-LC Sterling Hardware Mfg. Co 124
A Stone Council 345
Stromberg Time Corporation 332
A Summerbell Roof Structures 334
A Surface Combustion Corp 214
A-IC Sylvania Electric Products, Inc 76

A-IC Taylor, Halsey W. Co 343
A Texlite, Inc 14
A-LC Thrush, H. A. & Company 266
A Timber Structures, Inc 330
A Titus Manufacturing Corp 55
A-LC Trade-Wind Motor Fans 330
A-IC Trane Company 224-225
A-IC-LC Truscon Steel Division 100-101
A Tuttle & Bailey, Inc 108
Typhoon Air Conditioning Co. Inc 315

A-LC Ualco Aluminum Windows 97
United States Air Conditioning Corp 321
A United States Bronze Sign Co., Inc 339
A-IC United States Gypsum 244-245
A United States Plywood Corp 268
A-IC United States Steel Corp. Subsidiaries 122-272-317
U. S. S. Stainless Steel 317
A Universal Atlas Cement Company 272
A Uvalde Rock Asphalt Co 253

A-IC Viking Corporation 262-263
Vogt, Henry Machine Co 277
A Vonnegut Hardware Co 84

A-IC Wakefield Brass, F. W. Co 339
A-LC Ware Laboratories, Inc 125
A Wasco Flashing Co 267
A Waylite Company 136
Webster Engineering Company 335
A-LC Weis, Henry Mfg. Co., Inc 282
West Coast Lumbermen's Assn 261
Western Pine Association 126
Westinghouse Electric Corp., Appliance 355
A-IC-LC Westinghouse Electric Corp., Apparatus 130 to 135
Wheeler Reflector Co 227
A Wheeling Corrugating Company 28-29
A-IC Wing, L. J. Mfg. Co 296
A Worthington Corporation 236
A Wright Manufacturing Co 246

Yale & Towne Manufacturing Company 22-23
A-IC York Corporation 327
A-IC Young Radiator Company 73

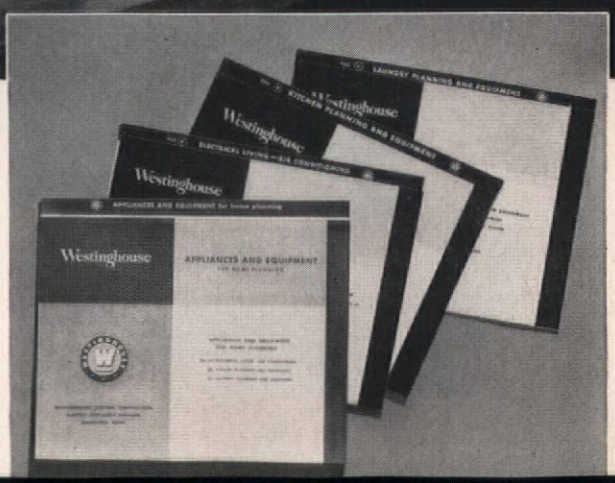
A-IC Zurn, J. A. Mfg. Co 297

New York—H. Judd Payne, Publishing Director; Robert F. Marshall, General Manager; Tom Tredwell, Advertising Mgr.; Benton B. Orwig, Creative Service Manager; M. A. Murphy, Advertising Production Manager, 119 West 40th Street; Harry M. Horn, Jr., Charles L. Reed, Jr., 119 W. 40 St.; BOSTON—Harry M. Horn, Jr., 855 Park Square Bldg.; CHICAGO—Claude B. Riemersma, Robert T. Franden, David K. Bortz, James A. Anderson, 700 Merchandise Mart; CLEVELAND—John C. Jackson, Joseph F. Palmer, 321 Hanna Bldg.; LOS ANGELES—Bob Wettstein, 672 South Lafayette Park Place; MIAMI—Benton B. Orwig, 802 N. W. First St.; PHILADELPHIA—Tom Tredwell, 1321 Arch St.; PORTLAND—Bob Wettstein, 1220 S. W. Stark St.; ST. LOUIS—Claude B. Riemersma, Richard C. Crabtree, 721 Olive St.; SAN FRANCISCO—Bob Wettstein, Howard Bldg., 209 Post St.

Do you have the 1954 Westinghouse File for Architects?

If your office designs houses, this compilation of up-to-the-minute information will be useful. It places, right at your finger tips, just what you will need day after day in planning homes for electrical living. Gathered into this file are specifications, dimensions, features and data on the installation of Westinghouse Appliances and home equipment. If you would like one, it is yours at no cost. Just send request on your letterhead to the address below.

Photo taken in the offices of Leavitt and Spieth, Architects, Cleveland, Ohio



CONTENTS OF THE FILE: Data on heat pump, air conditioning and purification, electric heating, dehumidifiers, Micarta, lighting and wiring; specifications on 11 refrigerator models, 3 home freezers, 9 electric ranges, 4 automatic dishwashers, 2 food waste disposers, 2 automatic clothes washers and dryers, 3 home vent fans and a complete line of electric water heaters.

YOU CAN BE SURE... IF IT'S Westinghouse

WESTINGHOUSE ELECTRIC CORPORATION

Electric Appliance Division • Mansfield, Ohio

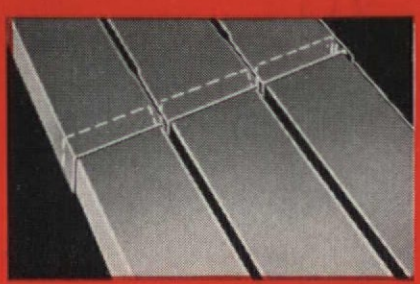
MILCOR* Steel Roof Deck

The permanence of steel—in a roof that *goes up fast!*

Time is money on every building job. Milcor Steel Roof Deck gets operations under cover fast at low labor cost, gives ideal base for permanent roofs.

Milcor Steel Roof Deck is quickly attached to any structural member by welding. Clips can be furnished for anchoring the deck, when welding facilities are not available or if purlins are wood.

Unique design permits sections to be nested and lapped quickly and easily. Plates interlock firmly, providing an unbroken roof surface that is adaptable to any degree of insulation.



Milcor Roof Deck offers cost-cutting advantages you can't afford to overlook:

1. It can be erected anytime—in any weather a man can work.

2. It is light in weight — finished roof requires less costly supporting structures.

3. It is versatile — can be used for flat, pitched, or curved roofs . . . sidewalks and partitions . . . or as permanent steel forms for concrete.

Milcor Steel Roof Deck provides additional advantages, also: High strength-to-weight ratio. Fire resistance. Low maintenance cost.

Leading architects have specified Milcor Roof Deck for low-cost, durable roofs on auditoriums, field houses, factories, office buildings, hotels, apartment houses, hospitals and schools.

For help in planning efficient use of Milcor Steel Roof Deck on *your* jobs, see the special Milcor Roof Deck section in Sweet's, check the 1954 Milcor Manual (also in Sweet's), or call on our engineering service.

M-132

INLAND STEEL PRODUCTS COMPANY

4035 WEST BURNHAM STREET • MILWAUKEE 1, WISCONSIN

BALTIMORE 5, MD., 5300 Pulaski Highway — BUFFALO 11, N. Y., 64 Rapin St. — CHICAGO 9, ILL., 4301 S. Western Blvd.—CINCINNATI 25, OHIO, 3240 Spring Grove Ave. —CLEVELAND 14, OHIO, 1541 E. 38th St.—DETROIT 2, MICH., 690 Amsterdam Ave.— KANSAS CITY 41, MO., P. O. Box 918 — LOS ANGELES 58, CALIF., 4807 E. 49th St. — NEW YORK 17, N. Y., 230 Park Ave. — ST. LOUIS 10, MO., 4215 Clayton Ave.

*Reg. U. S. Pat. Off.

All along the line...

H.B. Smith Gas Boiler

has Everything

FOR THE ARCHITECT AND ENGINEER

The compact size and high efficiency of the H. B. Smith "Century" permits freedom of design and ease of installation. The boiler is equally at home in rumpus room or boiler room since it is attractive in appearance and clean in operation.

FOR THE CONTRACTOR

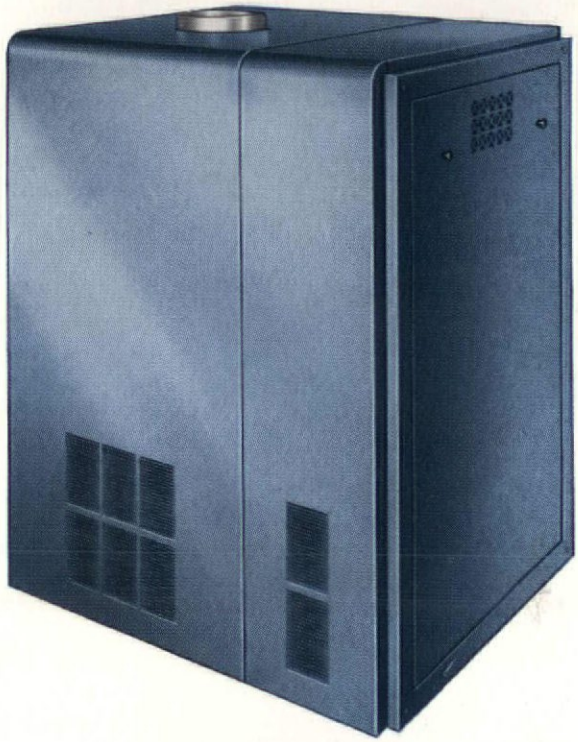
The "Century" is easily assembled by two men in less than two hours. All piping and control connections may be made on *either* the left or right side. All gas controls and safety devices are of the latest A.G.A. listed type, conveniently located.

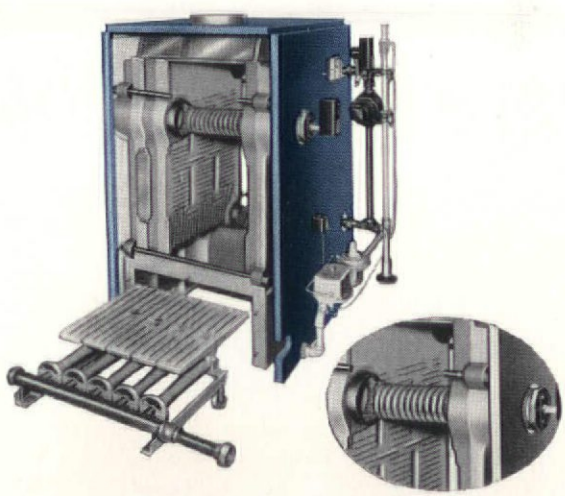
FOR THE GAS COMPANY

The company benefits because here is a gas boiler that is a credit to its fuel (natural, manufactured or mixed). It is far and away the easiest gas boiler to service. Just disconnect one union and the entire burner assembly rolls out on casters. *All* internal surfaces may be cleaned easily without disturbing the draft hood or smoke pipe.

FOR THE OWNER

As they should, the majority of this boiler's many advantages accrue to the user. He enjoys the benefits of moderate initial cost, carefree heat, abundant hot water, and long-life performance which makes his heating *cost per year* an advantageous investment. He will be proud to show his friends his H. B. Smith gas boiler — truly the gas boiler of the century.





Optional built-in tankless domestic hot water heater provides up to eight gallons per minute. Tank heaters also available.

H.B. Smith **CAST IRON BOILERS**

Established 1853

THE H. B. SMITH COMPANY, INC., WESTFIELD, MASSACHUSETTS

RUMFORD PRESS
CONCORD, N. H.

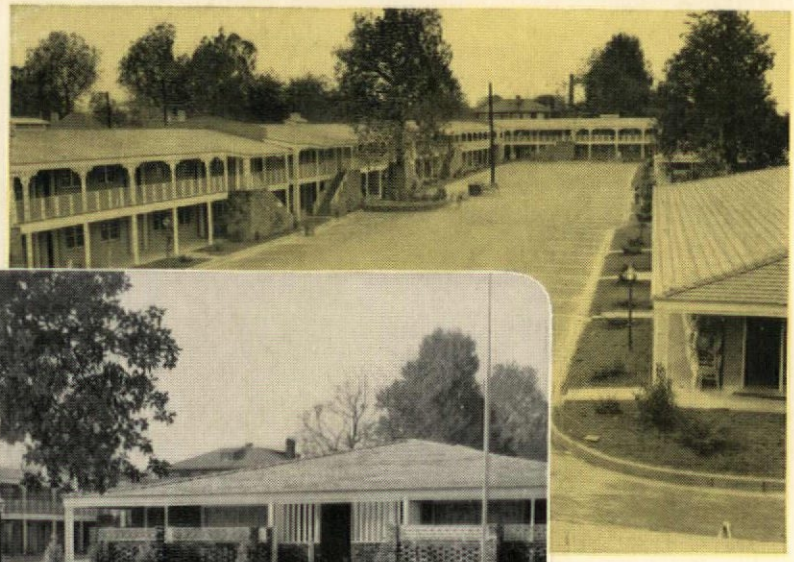
ROBERT T. MARTIN
architect

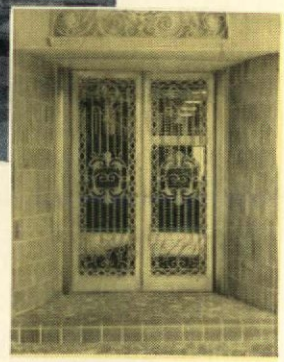
L. L. STROUD
mechanical engineer
construction supervisor

W. A. SOEFKER & SON
plumbing contractor

CENTRAL SUPPLY CO.
plumbing wholesaler

KOHLER CO.
plumbing fixtures





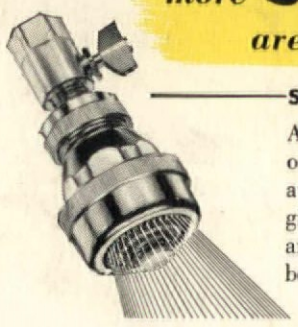
The architectural styling of this new court at the gateway to Memphis, Tenn., is New Orleans French Colonial, with old brick fronting and traditional ornamental iron for support of and railing on a continuous balcony. An alluring swimming pool, faced by patio suites, is set in a beautifully landscaped area. The two bronze doors opening into the commodious lobby were once the ornate entrance to the famous Sherry's Restaurant, New York.

ONLY THE BEST FOR EVERY GUEST

TOWN PARK MOTOR HOTEL, MEMPHIS, situated at the convergence of five east-west U.S. highways and only a few minutes from downtown, is a million-dollar, 150-room luxury court that ranks among the finest in the nation. In the planning, construction and furnishing, two factors were dominant—comfort and enjoyment for guests. The entire structure is served by a most modern air conditioning system, controlled noiselessly. Noise, always disturbing to travelers, is practically non-existent here. Single rooms and suites are separated by thick masonry walls and have acoustical ceilings. Mr. L. L. Stroud, a partner, said: "I cannot over-emphasize the necessity of controlling the noise factor. We use SLOAN *Quiet-Flush* VALVES throughout our motor hotel." Because flush valves by Sloan build good will, create favorable comment and make important savings, doesn't the example of this excelling hotel suggest an idea to *you*, and explain why...

more **SLOAN *Flush* VALVES**
are sold than all other makes combined

SLOAN VALVE COMPANY • CHICAGO • ILLINOIS



Another achievement in efficiency, endurance and economy is the SLOAN *Act-O-Matic* SHOWER HEAD, which is automatically self-cleaning each time it is used! No clogging. No dripping. Architects specify, and Wholesalers and Master Plumbers recommend the *Act-O-Matic*—the better shower head for better bathing.

Write for completely descriptive folder